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Presenting the Top 24 Service Exports!

Bernard Ascher

Be polite to those tourists with foreign accents who ask for directions. Their purchases in the United States of hotel accommodations, meals, sightseeing tours and other daily needs are a visible form of U.S. service exports.

Travel, in fact, was the leading U.S. service export in 1991, amounting to \$48.8 billion. This was almost one third of the \$152 billion total cross-border private sales of services to foreigners.

In the past several years, foreign tourists have spent more in the United States than Americans have spent abroad, adding to the surplus in services in our balance of payments accounts. In 1991, the latest complete year for which data are available, services contributed a surplus of more than \$52 billion to the balance of payments, helping to offset the deficit in merchandise trade.

Services account for a larger portion of total exports for the United States than for most other countries. In 1990 services were roughly 25 percent of total U.S. exports of goods and services, whereas for the world as a whole, services accounted for only about 20 percent.

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Additional information on services, which became available in U.S. statistics only in recent years, now provides more detail to identify the leading exports, as shown in **Table 1**. The top 24 service exports accounted for about \$119 billion, or nearly four-fifths of total cross-border sales of services in 1991. Many of these were not reported separately as recently as five years ago.

Beyond Travel

In addition to travel, the largest service export, transportation-related services top the list of export earners. These include passenger fares (\$15.6 billion); port services (\$15.3 billion); freight transportation (\$7.2 billion); and other transportation, such as charter of vessels and aircraft and container leasing (\$1 billion). Travel and transportation-related services accounted for 58 percent of total cross-border sales, or \$88 billion.

By comparison, machinery and mechanical equipment, the largest U.S. merchandise export product group, registered a total of nearly \$120 billion

in 1991; aircraft and other transport equipment was the second largest, totalling about \$70 billion.

Aside from travel and transportation-related services, eleven other groups of services exceeded \$1 billion in cross-border sales in 1991: education (\$5.8 billion); financial services (\$4.7 billion); telecommunications (\$2.8 billion); industrial process fees (\$2.6 billion); installation, maintenance, and repair (\$2.5 billion); insurance (\$2.1 billion); film and video rentals (\$2.0 billion); computer and data processing (\$1.7 billion); construction, engineering, and architecture (\$1.3 billion); broadcast, book, trademark, and franchise fees (\$1.2 billion); and legal services (\$1.2 billion).

Rounding out the top 24 are eight other groups of services with cross-border sales exceeding \$100 million: medical services (\$672 million); management, consulting and public relations (\$661 million); research, development and testing (\$559 million); industrial engineering (\$540 million); data base and other information services (\$403 million); training (\$294 million); advertising (\$179 million); and accounting and auditing (\$154 million).

Table 1
U.S. Cross-Border Sales of Services, 1991
Ranked in Order of Value

	(In \$ Millions)	Percent of Total
1 Travel	48,757	32.0
2 Passenger Fares	15,627	10.3
3 Port Services	15,332	10.1
4 Freight Transportation	7,237	4.8
5 Education	5,752	3.8
6 Financial Services	4,689	3.1
7 Telecommunications	2,794	1.8
8 Industrial Process Fees	2,586	1.7
9 Installation/Maintenance/Repair	2,493	1.6
10 Insurance, net	2,063	1.4
11 Film/Video Rentals	2,021	1.3
12 Computer/Data Processing	1,714	1.1
13 Construction/Engineering	1,293	0.8
14 Broadcast/Book/Other Rights	1,199	0.8
15 Legal Services	1,173	0.8
16 Other Transport	1,056	0.7
17 Medical Services	672	0.4
18 Management, Consulting, PR	661	0.4
19 R & D, Testing	559	0.4
20 Industrial Engineering	540	0.4
21 Data Base/Information	403	0.3
22 Training	294	0.2
23 Advertising	179	0.1
24 Accounting/Auditing	154	0.1
25 All Other	33,004	21.7
Total	152,252	100.0

The Residual

For the remaining \$33 billion in sales, the available information identifies the type of transaction, but not necessarily the type of service. This portion of the total, roughly 22 percent, is large enough to qualify as the second largest service export. It is divided into two general groups—one, valued at \$28.1 billion, consists mainly of parent-affiliate sales other than film, video rentals and insurance. The second group is made up of sales to unaffiliated foreigners, other than those specified in the 24 listed categories, and had a value of \$4.9 billion.

The parent-affiliate sales are composed almost entirely of intra-firm payments of royalties and license fees, service charges, and rents for tangible properties, which are not specified by type of service in the official statistics.

Nearly all of the other sales to unaffiliated foreigners, about \$4.6 billion in 1991, are sales of unspecified services, mainly to foreign embassies and international organizations in the United States. The remainder, totalling \$0.3 billion, consists of specified services such as sports and performing arts; personnel supply services; and mailing, reproduction and commercial art services sold to unaffiliated foreigners.

Financial Services

Financial services, ranked sixth on the basis of available information, would be close to top-rank if information were available on the full range of such services provided to foreigners in cross-border transactions. Because this is one of the most dynamic service sectors, with new financial instruments being developed almost constantly, and with communications technology driving the world's capital markets ever closer together, it is not surprising that official statistics have had great difficulty keeping pace with developments.

Current statistics include only commissions on securities and commodities trading plus some types of services rendered by commercial banks. Not available, however, are revenues from such activities as foreign exchange trading, portfolio management, merger and acquisition advice and negotiation, advice on privatization, and trading in futures, swaps, and options—potentially an enormous figure.

Commerce Department analysts are actively studying financial services to determine the nature of the services, measurability of the service performed, and whether conceptually the transactions are cross-border sales or merely domestic sales of foreign products. Fees or commissions for foreign exchange trading, for example, are not included in the statistics. Most of these transactions are believed to be resident-to-resident and, therefore, are not considered balance-of-payments transactions. However, the volume of these trades is so massive (estimated at \$900 billion a day) that even if only a small number are international, the commissions for this service could add billions of dollars to annual U.S. receipts for cross-border transactions.

In another example, financial instruments developed in recent years enable trading in futures and options worldwide. It is estimated that 500 million contracts were traded last year, a rate of more than 1,000 per minute. Again, this could add billions of dollars to the services statistics, depending upon how the service is transacted and valued.

Insurance

In the list of top 24 service exports, insurance appears tenth, with \$2 billion in cross-border sales. However, this amount is a net figure—that is, losses paid are deducted from premiums received. The difference between the gross and net figures, which amounts to about \$4 billion, is not included in the balance of payments total for cross-border sales of insurance. The current statistical method is recognized internationally for balance of payments purposes, but if the gross figure were used, insurance would jump to number five in the U.S. service export standings.

Entertainment

Statistics are available for elements of another important area of services—the audio visual or entertainment sector—but there is no specific total because there is no distinct grouping entitled “entertainment.” Statistics are reported for film and tape rentals, broadcasting and recording of live entertainment, rights for books, records and tapes, sports and performing arts. Some forms of entertainment are included in the travel and tourism account. Physical shipments of sound recordings, films and videos are included in merchandise statistics and are based on the value of the film or tape, not the filmed content.

Similarly, there is no distinct grouping titled “intellectual property,” but the balance of payments category “royalties and license fees” provides a close substitute. For intra-firm transactions, no detail by type of intangible asset is available. For transactions between unrelated entities, statistics are separately available for industrial process fees, broadcasting and recording of live entertainment, rights for books, records and tapes, franchise fees, and other fees such as for trademarks.

Data on Many Services Are Still Unavailable

The convergence of telecommunications and computer technology has spawned a variety of services used by manufacturers and various service companies. These include round-the-clock global financial transactions; package locator systems used by transportation companies; reservation and ticketing systems used by hotels, airlines, car rental companies, and theaters; and “back office” work done at remote locations. Separate data are not available for these specific services performed on a cross-border basis. Data are available, however, for three related types of services—telecommunications, the seventh-ranked service export; computer and data processing services, ranked twelfth; and data base and other information services, which is twenty-first. The combined export total for these three groups, \$4.9 billion, would place them sixth among the leading service exports.

Specific export data are not available for wholesale and retail services, one of the largest sectors of the domestic economy. Since these services involve the movement of goods, the value of these services are implicitly included in the value of merchandise trade. Data are available for franchise fees, but these would not necessarily represent the value of services performed by franchised retail outlets.

Sales of Services Through Foreign Affiliates

Many services can be sold or delivered only through establishments located within the consuming country. Sales of services through U.S. affiliates overseas amounted to \$118.6 billion in 1990, the latest year for which data are available. Such transactions fall outside the balance of payments because the affiliate is considered a resident of the host country. Although they are an important source of receipts from foreigners, these transactions are not included in the statistics for cross-border sales of services. Further details are available by industry, but not by type of service. Banks are not included in these data.

Critical Review Is Needed

Although progress has been made in improving the statistics on trade in services, much remains to be done. Now that the growing importance of services relative to other sectors of national economies has become more widely recognized, governments and businesses are likely to seek further information on the performance of service industries in domestic and foreign markets. Currently available statistics will be put to the test to monitor developments in services trade and investment.

Critical review and more experience using the newly available data are needed to evaluate the degree of accuracy and reliability of the statistical information. For example, it would be useful to know if data users believe the statistics —

- adequately depict the levels of cross-border business activity in particular services;
- are useful as indicators of trends and patterns of international business;
- are helpful in identifying areas of potential business opportunity and competition;
- are organized in a way that facilitates comparisons of official data with company data and other privately available information.

Perhaps, by focusing on particular groups of services, this presentation of the 24 leading service exports will stimulate further analyses and promote continued efforts to assure that the statistical information meets the needs of users in government, industry and academia.

Notes to Table

1. Travel includes expenditures by foreign tourists in the United States, including lodging, meals, souvenirs, gifts, entertainment, car rentals, and local transportation.
2. Passenger fares are largely air fares, but also include cruise ship fares.
3. Port services include fees paid by foreign vessels and airlines for docking as well as costs of fuel, maintenance, parts and equipment.
4. Freight transportation includes the cost of moving cargo by all modes: air, ocean, road, rail, pipeline.
5. Education includes foreign students attending U.S. colleges and universities. Job training is included in a separate category for training.

6. Financial services include commissions on securities and commodities trading plus some types of services rendered by commercial banks.
7. Telecommunications include message telephone services (voice, video and data); private leased channel services, telex, telegram, and other jointly-provided (basic) services; value-added (enhanced) services; and telecommunications support services. Statistics are not separately available for voice, video, and data transmission since the carriers usually do not distinguish use of phone lines by type of information transmitted.
8. Industrial process fees are license fees and royalties paid by manufacturers for the use of process and product patents and other manufacturing rights.
9. Installation, maintenance and repair includes revenues received for setting up or servicing machinery and equipment.
10. Insurance is shown as a net figure, i.e., premiums minus claims paid. The data include both sales to unaffiliated foreigners and parent-affiliate transactions. The difference between the gross and net figures—amounting to about \$4 billion—is not included in the balance of payments total for cross-border sales of insurance.
- H. Film and video rentals include royalties and fees for the right to exhibit and/or broadcast films and videos. Actual shipment of films and videos are included with merchandise trade statistics, and are valued on the basis of the cost of the film or tape and not the filmed content. The data include sales to unaffiliated foreigners and parent-affiliate transactions.
12. Computer and data processing services do not include data base and other information services, which are separately reported. Included are: data entry processing and tabulation (both batch and remote processing services); systems analysis, design, engineering, and custom programming; software services (rights to use, reproduce or distribute prepackaged software); computer and data processing equipment leasing (except financial leasing); integrated hardware/software systems (systems consisting of purchased computers and peripheral equipment that are then matched with software products or custom software to provide complete information systems for clients); and other computer services, such as timesharing, maintenance and repair.
13. Construction, engineering and architectural services include only the value of professional services performed, not the goods and materials, nor manual labor involved in the construction project.
14. Broadcast, book and other rights include royalties and fees received from broadcasting and recording of live events; books, records, and tapes; franchise fees; trademark and copyright fees. Royalties and license fees for industrial processes are separately reported.
15. Legal services represent services performed for foreigners in the United States as well as overseas.
16. Other transport includes charter of vessels and aircraft and leasing of containers and other transport-related equipment.
17. Medical services include receipts from foreigners using U.S. hospitals, clinics, and health professionals. Receipts from the management of health facilities abroad are reported separately.
18. Management, consulting and public relations represent services performed for foreigners in the United States as well as overseas.
19. Research, development and testing services include services performed for foreigners in the United States and abroad.
20. Industrial engineering services include product design.
21. Data base and other information services include business and economic data base services (business news services, stock quotation services, and financial information services); miscellaneous data base services (medical, legal, technical, demographic, bibliographic, and similar data base services); general news services; other information services (hotel, airline, automobile rental, and other reservation systems; credit reporting and authorization systems).
22. Training services include job training and other special courses for employees provided commercially by specialists.
23. Advertising represents receipts for the preparation of advertising material as well as the cost of placing advertising messages in the media. Advertising firms derive most of their foreign revenues from affiliates located abroad.
24. Accounting, auditing and bookkeeping services consist of receipts for such services performed for foreign clients in the United States and abroad. The relatively small figure for cross-border sales probably indicates that accounting firms derive most of their foreign revenues from affiliates located abroad. In addition to accounting services, firms in this industry are engaged in tax preparation and advice, management consulting, and computer and data processing services.

SERVICES ECONOMIC HIGHLIGHTS

CSI

Allen Sinai

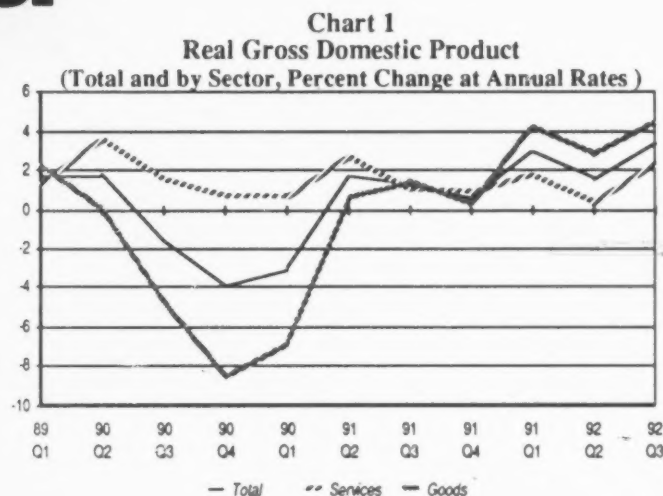
Chief Economist, Boston Company Economic Advisors, Inc.

The Service Economy At a Glance—Recovery Beginning to Jell

- **Service Gross Domestic Product (GDP) Measured by Expenditures** increased 2.4 percent at an annual rate in the third quarter, accelerating from 0.4 percent in the second quarter of the year. Economic activity in the goods-producing sector was up 4.5 percent, from 2.8 percent in the second quarter. *The increase in activity is welcome, but continued increases are needed before the recovery solidifies.*
- **Personal Consumption on Services** increased 3.1 percent at an annual rate in the third quarter, up from a 1.2 percent rate in the second quarter. Personal consumption of goods increased 4.5 percent following a 1.7 percent decline in the previous quarter. Data through November point to continued strength for consumption of services in the fourth quarter.
- **Private Service Exports** increased \$600 million in the third quarter from the second—going back to the \$41.6 billion level reached in the first quarter. Third-quarter imports of services declined \$2.3 billion, leading to a record \$16.4 billion surplus for private service trade.
- **The Service Sector Leading Index** showed a 2.8 percent increase in November, up from 1.1 percent in October and the highest since June. The coincident index, which reflects current economic conditions, increased 2.6 percent, up from a 1.2 percent increase in October. *The index suggests better days ahead in services.*
- **Service Employment** made steady gains throughout the year. On average, the 534,700 increase in service employment for 1992 more than made up for the 341,300 losses during 1991. Sectors which have contributed to higher employment were business, health care and government.
- **Consumer Service Price Inflation** was 3.8 percent in November, unchanged from October. Service price inflation was below 4 percent in 1992, compared with 5 percent plus in the previous two years.
- **The Service Stock Price Index** increased 3.6 percent in November and was up 15.7 percent from a year earlier. Service company stock prices indicate a better economy.

Bottom Line: Sporadic and uneven indicators of a pending recovery are increasingly giving way to more positive news, both for the services and goods sectors of the U.S. economy. Expected small gains in service sector employment and improved consumer confidence will help to solidify the recovery. Private service exports continue to grow, but at a moderate rate, reflecting weak economies abroad. Company profits for service establishments are expected to recover following a poor performance in 1992.

The service economy refers to the total economy, in which services activities are the dominant factor. The service economy comprises 68 percent of real production GNP and 77 percent of employment. Major segments are: Communications; Transportation; Public Utilities; Finance, Insurance and Real Estate; Wholesale and Retail Trade; Government; and "Service," a diverse category including Business Services, Personal Services, Professional and Health Services.



Service GDP Growth Rebounds

Growth of service GDP—measured on an expenditure basis—rebounded to a 2.4 percent annual rate in the third quarter, following marginal growth of 0.4 percent in the second. The pick-up in service GDP growth was mainly due to higher personal consumption of services. The goods component of GDP grew at an annual rate of 4.5 percent, up from 2.8 percent in the second quarter. However, excluding construction (which declined 3.1 percent), goods GDP increased 6.2 percent—the highest rate of growth in over three years.



Service Leading Index Picks Up

The leading index for the service sector increased 2.8 percent in November, up from 1.1 percent in October, and the largest increase since June. At 2.6 percent, growth for the coincident service index was also higher in November—the largest increase in 29 months. Growth in the leading index for the overall economy was strong, up 3.3 percent in November, from 2.2 percent in October.

The Service Sector Indices are produced by the Center for International Business Cycle Research, Columbia University.



Service Employment Increases

Service-sector employment made small but steady gains in the last four months of the year totalling 315,000. Most of the gains were attributed to higher employment in business services. Compared to year-earlier levels, service jobs are up 868,000. Job losses in the goods sector slowed to a total of 89,000 for the last four months of the year, compared with 252,000 in the previous four-month period. Goods-sector employment is off 311,000 compared to year-earlier levels.

Chart 4
Plant & Equipment Expenditures
(Index, 87Q2 = 1.00)

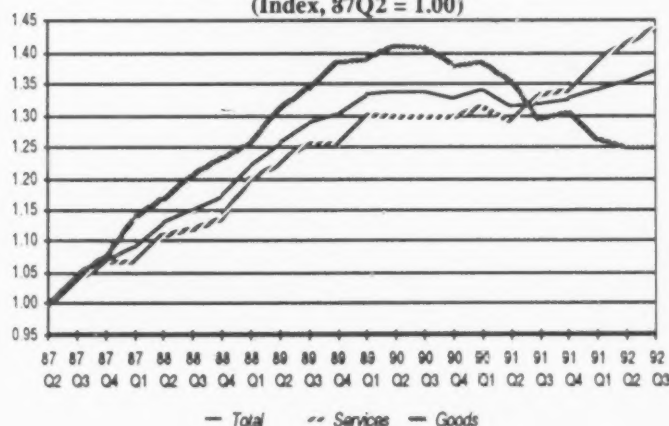


Chart 5
Private Service Trade
(Billions of Dollars)

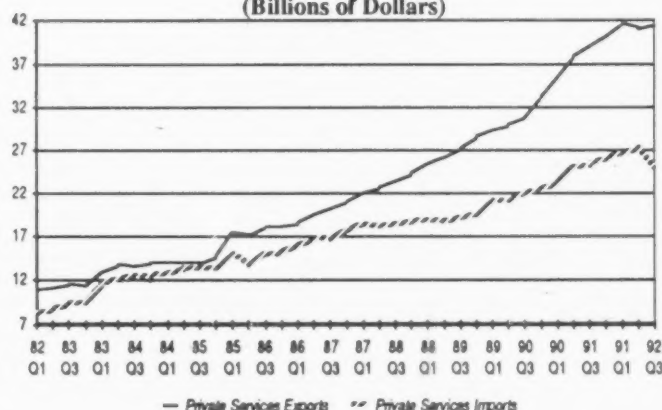
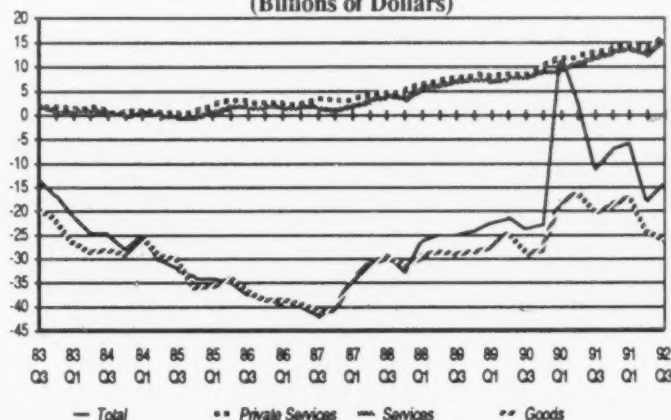


Chart 6
Current Account Balance and Components
(Billions of Dollars)



Higher Plant & Equipment Expenditures

Plant and Equipment (P&E) expenditures by service industries increased at an annual rate of 7.2 percent in the third quarter to stand 8 percent over their level a year earlier. The largest investors were wholesale and retail trade, the transportation industry, and communications. P&E spending by FIRE, public utilities, and personal and business services declined. P&E spending by goods-producing industries increased 0.8 percent from the second quarter, but was 3.3 percent lower than its level a year earlier.

Gains in Service Trade Balance

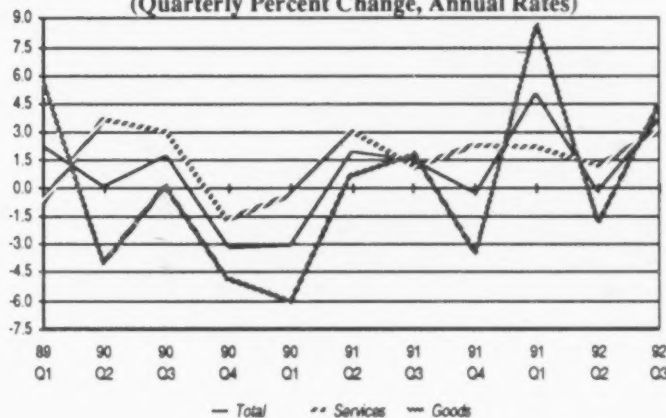
Private service exports increased \$600 million in the third quarter to \$41.6 billion, following a decline of an equal amount in the second quarter. Imports of private services declined \$2.3 billion as a result of foreign insurance payments on hurricane Andrew damages. The result was a higher private service balance of \$16.4 billion, compared to a \$13.6 billion surplus in the second quarter. For the first three quarters of the year the service trade surplus was close to \$60 billion, at an annual rate.

* Private service trade refers to exports and imports in such sectors as travel, tourism, insurance, education, and fees and royalties, and excludes receipts and payments on investments and government transactions.

Lower Current Account Deficit

The current account deficit declined to \$14.2 billion in the third quarter from \$17.8 billion in the second. Contributing factors to the improvement were a higher service balance and lower transfer payments. The goods trade deficit deteriorated to \$26.5 billion from \$24.6 billion in the second quarter. For the first three quarters of 1992 the current account deficit has been \$50.5 billion, at an annual rate.

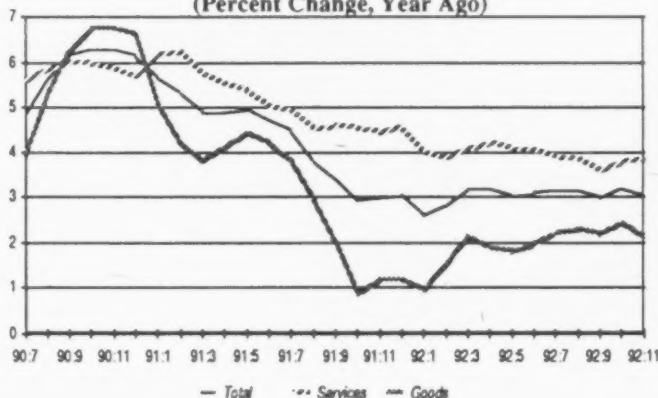
Chart 7
Real Personal Consumption Expenditures
(Quarterly Percent Change, Annual Rates)



Service Consumption Higher

Real personal consumption expenditures on services increased to a 3.1 percent rate in the third quarter from 1.2 percent in the second. Higher spending on housing, medical care and other services led the increase. Personal consumption expenditures on goods also increased in the third quarter, up 4.5 percent, compared to a 1.7 percent decline in the second quarter. Data for October and November imply that the strong third quarter rate of service consumption has been maintained.

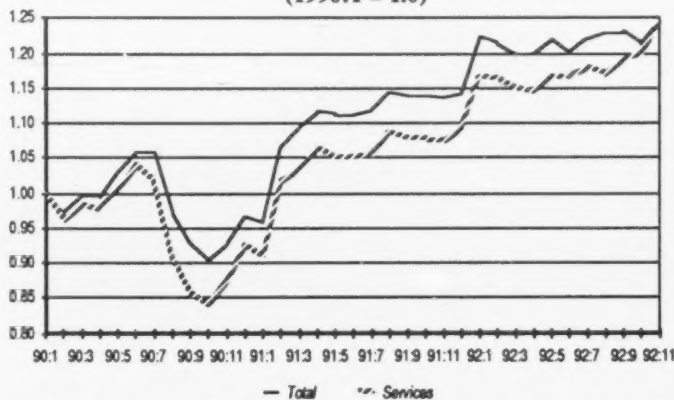
Chart 8
Consumer Price Indices
(Percent Change, Year Ago)



Service Inflation Stabilizes

Prices of consumer services increased 3.8 percent over their level a year earlier in both October and November. Service inflation averaged under 4 percent in all of 1992. Prices for consumer goods increased 2.1 percent in November, about the average for most of 1992, but down from 3.1 percent in 1991.

Chart 9
S&P 500 and Service Stock Price Indices
(1990:1 = 1.0)



Service Stock Prices Up

The stock price index for service companies was up 3.6 percent in November from October, the first substantial increase since January. The November increase S&P 500 index was somewhat smaller, at 2.5 percent, and was followed by a 3 percent increase in December. Compared with their levels a year earlier, the stock price index for service companies was up 15.7 percent and that for the S&P 500 was up 12.1 percent.

The Service Stock Price Index is based on S&P indices for 13 service industries and is compiled by the Center for International Business Cycle Research.

SALES OF U.S. SERVICES THROUGH AMERICAN COMPANIES ABROAD A GROWING BUSINESS

By Allen Sinai and Zaharo Sofianou

Sales of services by American companies abroad—distinct and separate from U.S. exports—are some of the little known statistics on services. Data on sales abroad for both goods and services are collected by the U.S. government on an annual basis, with a lag of about two years. The most recent data is for the year 1990, and only covers past years to 1986.

What are Sales of Services by Foreign Affiliates of U.S. Companies?

Sales of services, and goods for that matter, by foreign affiliates of U.S. companies are not classified as exports because they are produced and sold in foreign countries. Exports of services and goods are those which have been produced in the United States and are sold abroad. Sales of services by foreign affiliates of U.S. companies do not contribute to the production of output (U.S. Gross Domestic Product), however, *profits* from American company operations abroad, either as a result of these sales or of other activities, contribute to the U.S. Gross National Product.

Table 1
Sales of Services to Foreign Persons By Nonbank
Majority-Owned Foreign Affiliates of U.S. Companies
By Country and Industry
(1990, Billions of Dollars)

	All Countries	Canada	Europe	United Kingdom	Latin America	Total Other	Japan
All Industries	118.643	16.065	68.557	25.414	8.094	23.290	10.198
Petroleum	7.783	0.527	3.515	2.240	0.491	1.163	*
Manufacturing	15.821	1.817	10.636	2.290	1.039	2.329	2.145
Food and Kindred Products	0.068	0.002	0.040	0.002	0.018	0.008	0.000
Chemicals and Allied Products	0.306	0.114	0.145	0.058	0.043	0.005	0.001
Primary and Fabricated Metals	0.061	0.029	0.030	0.026	0.001	+	0.000
Machinery	13.495	*	9.454	*	*	*	*
Other Manufacturing	1.890	*	0.966	*	*	*	*
Wholesale Trade	15.504	0.993	10.693	2.138	0.675	3.142	0.960
Retail Trade	0.508	*	0.259	*	*	*	*
Finance, Except Banking	10.791	0.933	*	4.946	0.701	*	*
Insurance	20.876	5.391	5.279	3.282	3.325	6.881	4.044
Real Estate	1.368	0.512	*	0.062	0.016	*	*
Services	38.561	3.897	27.694	9.666	1.255	5.715	1.530
Hotels and Other Lodging Places	2.605	0.273	1.072	0.183	0.436	0.824	*
Advertising	4.024	0.280	2.982	0.941	0.085	0.676	*
Equipment Rental and Leasing, Except Autos and Computers	0.678	0.177	0.441	0.048	0.049	0.011	0.000
Computer and Data Processing Services	7.738	0.632	5.814	2.253	0.192	1.100	0.171
Motion Pictures, Including Television Tape and Film	5.181	0.332	4.264	0.959	*	*	0.219
Engineering, Architectural and Surveying Services	4.709	*	3.674	1.715	0.046	*	0.030
Accounting, Research, Management, and Related Services	5.099	0.410	3.742	1.185	0.133	0.813	0.272
Health Services	0.369	*	0.222	0.126	*	*	0.000
Other	8.157	1.340	5.482	2.256	0.231	1.104	0.449
Other Industries	7.431	*	2.688	*	*	*	0.088
Agriculture, Forestry and Fishing	0.006	0.000	+	+	0.002	0.004	0.000
Mining	0.094	0.085	0.002	0.000	0.004	0.004	0.000
Construction	0.211	*	0.066	*	0.003	*	0.000
Transportation	4.520	1.372	1.616	0.685	0.438	0.544	0.088
Communication	0.262	0.002	*	0.002	*	0.111	0.000
Public Utilities	2.337	0.332	*	*	*	*	0.000

* = Suppressed to avoid disclosure of data of individual company

+ = Less than \$500,000

Sources: Bureau of Economic Analysis and The Boston Company Economic Advisors, Inc.

Allen Sinai is Chief Economist and Zaharo Sofianou, Senior Economist, of The Boston Company Economic Advisors, Inc.

While it is important to make the distinction between exports and sales through foreign affiliates in the context of GDP, many multinational companies view all sales equally, whether they were produced domestically or abroad. By moving production on location, and bypassing transportation costs, tariffs and quotas, some companies are better able to compete internationally. In addition, local consumers have an opportunity to become better acquainted with U.S. products and services. In the long-run, the service or product in question ceases to be regarded as "foreign" and may encounter less consumer bias. More importantly, for service-producing industries, being on location is often the only way to provide a service internationally.

This study looks at sales of services by majority-owned foreign affiliates of U.S. companies for the years 1986 through 1990. The data are available by the country in which the sales take place, and the industry that recorded the sale. The sales are of "majority-owned" foreign affiliates of U.S. companies—in other words, U.S. ownership of the foreign affiliate must equal or exceed 50 percent. All sales in the following tables are of services, even though some have occurred at "goods-producing" industries.

Between 1986 and 1990 sales of services by majority-owned foreign affiliates increased over 60 percent. Not all of the increase represents a higher volume of sales. The data are not adjusted for inflation, nor changes in exchange rates. Most of the increase, however, can be attributed to higher sales activity. (Tables 2 and 5).

Sales of Majority-Owned Foreign Affiliates By Region

By region, most of the sales by the affiliates of foreign companies took place in Europe. In 1990, just under 60 percent of all sales occurred in Europe, with 52.4 percent in the European Community. (Table 4).

The United Kingdom accounted for the largest proportion of sales as a single country, not only among European countries, but also world-wide. In 1990, 21.4 percent of all sales of services by

Table 2
Sales of Services to Foreign Persons By Nonbank
Majority-Owned Foreign Affiliates of U.S. Companies
(Billions of Dollars)

	1986	1987	1988	1989	1990
All Countries	72.849	87.011	100.813	99.226	118.643
Canada	13.655	15.750	16.877	16.065	16.065
Europe	36.030	43.859	52.374	53.132	68.557
Belgium	1.515	1.918	2.111	2.412	3.074
France	*	5.318	6.137	7.070	8.833
Germany	4.887	6.065	7.079	6.884	8.385
Italy	2.026	*	3.056	3.532	4.787
Netherlands	5.213	6.067	6.787	5.138	7.839
Norway	0.368	0.392	0.413	0.595	0.634
Spain	0.887	1.145	*	1.576	1.955
Switzerland	1.677	2.169	2.683	2.413	2.978
United Kingdom	13.121	15.612	19.696	19.716	25.414
Other	*	*	2.318	3.796	4.658
Latin America and Other Western Hemisphere	6.931	8.379	8.042	6.139	8.094
South and Central America	2.654	3.036	3.372	3.541	3.924
Argentina	0.414	0.389	0.375	0.477	0.437
Brazil	0.719	0.988	1.215	1.459	1.921
Mexico	0.462	0.519	0.650	0.723	0.628
Venezuela	0.328	0.365	0.381	0.251	0.280
Other	0.730	0.775	0.751	0.631	0.658
Other Western Hemisphere	4.277	5.343	4.670	2.598	4.170
Other Countries	11.703	14.855	18.641	21.299	23.290
Africa	0.938	0.771	0.765	0.563	0.627
Middle East	1.130	1.185	1.190	1.101	1.168
Asia and Pacific	9.635	12.899	16.686	19.635	21.495
Australia	2.523	3.198	3.843	3.880	4.031
Hong Kong	1.462	1.510	1.770	2.777	3.055
India	0.019	0.015	*	0.034	*
Indonesia	0.138	0.147	0.177	0.157	0.255
Japan	4.127	6.080	8.403	9.787	10.198
Korea	0.114	0.118	0.138	*	0.366
Malaysia	0.870	0.224	0.239	0.282	0.298
New Zealand	0.169	0.238	0.325	0.382	0.430
Philippines	0.238	0.255	0.262	*	*
Singapore	0.380	*	*	0.762	1.197
Taiwan	0.176	0.261	0.398	0.595	0.763
Other	0.203	*	*	0.505	0.716
International	4.530	4.168	4.879	2.590	2.637
NB: European Community	32.733	39.759	47.611	47.938	62.204

* Suppressed to avoid disclosure of data of individual companies

Sources: Bureau of Economic Analysis and The Boston Company Economic Advisors, Inc.

foreign affiliates of U.S. companies took place in the United Kingdom. Most of the sales in the United Kingdom and in the rest of Europe were in the services category, which consists of hotels, advertising, computer and data processing services, motion pictures, engineering, accounting, research and other business services (Tables 1 and 4).

Sales by foreign affiliates of U.S. companies in Canada ranked second after those in the United Kingdom. In 1990, services sales in Canada stood at 13.5% of total world sales. In 1986 and 1987, however, Canada ranked first in terms of sales of foreign affiliates of U.S. companies, with 18.6 percent and 18.1 percent, respectively, of world sales. The reduction in the proportion of Canadian sales of services was both relative, and in absolute terms, as sales declined 4.8 percent in 1989 and showed no increase in 1990. Part of the reason for this was the long and deep recession in Canada, which affected sales irrespective of the nationality of the parent company. Sales by the insurance industry were close to one-third of the entire sales of services by majority-owned foreign affiliates of U.S. companies in Canada.

Sales in the Asia and Pacific area, including Japan, accounted for 18.1 percent of the total in 1990. Sales by foreign affiliates of U.S. companies in Japan were the largest for the region, equalling 8.6 percent in 1990, down from close to 10 percent in 1989. In 1990, insurance was the industry with the largest proportion of sales by majority-owned foreign affiliates in Japan, representing 40 percent of all sales.

Sales of Majority-Owned Foreign Affiliates By Industry

By industry, most of the sales of foreign affiliates of U.S. companies fall within the category titled "services", a group of industries which includes advertising, hotels, computer and data processing, motion pictures, accounting, engineering, and architectural services, as well as research, management and health services (Table 3). In 1990, sales by services industries were about a third

Table 3
Sales of Services to Foreign Persons By Nonbank
Majority-Owned Foreign Affiliates of U.S. Companies
By Industry
(Billions of Dollars)

	1987	1988	1989	1990
All Industries	87.011	100.813	99.226	118.643
Petroleum	6.165	7.193	5.963	7.783
Manufacturing	9.385	11.432	13.272	15.821
Food and Kindred Products	0.111	0.087	0.157	0.068
Chemicals and Allied Products	0.125	0.174	0.358	0.306
Primary and Fabricated Metals	0.025	0.066	0.113	0.061
Machinery	*	*	11.057	13.495
Other Manufacturing	*	*	1.587	1.890
Wholesale Trade	9.912	11.364	14.583	15.504
Retail Trade	0.161	0.200	0.386	0.508
Finance, Except Banking	12.054	*	8.925	10.791
Insurance	19.143	20.664	18.201	20.876
Real Estate	0.569	*	1.092	1.368
Services	23.565	28.057	29.493	38.561
Hotels and Other Lodging Places	2.027	*	2.007	2.605
Advertising	2.567	3.147	3.367	4.024
Equipment Rental and Leasing, Except Autos and Computers	1.526	1.696	0.516	0.678
Computer and Data Processing Services	5.028	5.912	5.613	7.738
Motion Pictures, Including Television Tape and Film	2.631	3.399	3.618	5.181
Engineering, Architectural and Surveying Services	2.369	2.923	3.456	4.709
Accounting, Research, Management, and Related Services	2.384	3.030	3.941	5.099
Health Services	0.583	0.684	0.690	0.369
Other	4.449	*	6.283	8.157
Other Industries	6.057	5.868	7.311	7.431
Agriculture, Forestry and Fishing	0.034	0.043	0.004	0.006
Mining	0.105	0.119	0.104	0.094
Construction	0.091	0.088	0.189	0.211
Transportation	3.428	4.219	3.732	4.520
Communication	*	0.139	1.623	0.262
Public Utilities	*	1.260	1.658	2.337

* = Suppressed to avoid disclosure of data of individual company

Sources: Bureau of Economic Analysis and The Boston Company Economic Advisors, Inc.



of all sales by U.S. foreign affiliates. Sales by the insurance industry represented another 17.5 percent of all service sales, while sales of services by manufacturing industries and wholesale trade each accounted for 13 percent of the total. Financial services sold to foreign persons abroad were 9 percent of sales of all foreign affiliates of U.S. companies. Services sold by the petroleum industry were 6.7 percent, while those of the transportation industry amounted to another 3.8 percent.

Conclusion

Sales of services by majority-owned foreign affiliates of U.S. companies consist of those sales produced and sold in foreign countries by companies which are at least 50% owned by U.S. entities. These sales are not part of U.S. exports and cannot be classified as such because they are not produced in the United States. However, like exports, they represent substantial sales by U.S. companies—equalling \$118.6 billion in 1990. When this figure is added to \$138.1 billion of cross-border sales, total international sales of U.S. services amounted to \$256.7 in 1990, or an increase of almost 20 percent over 1989.

Local sales of both goods and services are important to U.S. companies. Production at or near the point of sale has the advantage of bypassing tariffs, quotas and other non-tariff barriers. For goods, local production means lower transportation costs, while for services, local presence means timeliness and familiarity with the local market. Most importantly, however, the intangible nature of many services demands proximity to the consumer. As foreign direct investment barriers are lowered in other countries, sales of services by majority-owned U.S. companies can be expected to increase at a more rapid pace in the years ahead.

Table 4
Sales of Services to Foreign Persons By Nonbank
Majority-Owned Foreign Affiliates of U.S. Companies
(Percent of Total)

	1986	1987	1988	1989	1990
All Countries	100.0	100.0	100.0	100.0	100.0
Canada	18.7	18.1	16.7	16.2	13.5
Europe	49.5	50.4	52.0	53.5	57.8
Belgium	2.1	2.2	2.1	2.4	2.6
France	*	6.1	6.1	7.1	7.4
Germany	6.7	7.0	7.0	6.9	7.1
Italy	2.8	*	3.0	3.6	4.0
Netherlands	7.2	7.0	6.7	5.2	6.6
Norway	0.5	0.5	0.4	0.6	0.5
Spain	1.2	1.3	*	1.6	1.6
Switzerland	2.3	2.5	2.7	2.4	2.5
United Kingdom	18.0	17.9	19.5	19.9	21.4
Other	*	*	2.3	3.8	3.9
Latin America and Other Western Hemisphere	9.5	9.6	8.0	6.2	6.8
South and Central America	3.6	3.5	3.3	3.6	3.3
Argentina	0.6	0.4	0.4	0.5	0.4
Brazil	1.0	1.1	1.2	1.5	1.6
Mexico	0.6	0.6	0.6	0.7	0.5
Venezuela	0.5	0.4	0.4	0.3	0.2
Other	1.0	0.9	0.7	0.6	0.6
Other Western Hemisphere	5.9	6.1	4.6	2.6	3.5
Other Countries	16.1	17.1	18.5	21.5	19.6
Africa	1.3	0.9	0.8	0.6	0.5
Middle East	1.6	1.4	1.2	1.1	1.0
Asia and Pacific	13.2	14.8	16.6	19.8	18.1
Australia	3.5	3.7	3.8	3.9	3.4
Hong Kong	2.0	1.7	1.8	2.8	2.6
India	0.0	0.0	*	0.0	*
Indonesia	0.2	0.2	0.2	0.2	0.2
Japan	5.7	7.0	8.3	9.9	8.6
Korea	0.2	0.1	0.1	*	0.3
Malasia	1.2	0.3	0.2	0.3	0.3
New Zealand	0.2	0.3	0.3	0.4	0.4
Philippines	0.3	0.3	0.3	*	*
Singapore	0.5	*	*	0.8	1.0
Taiwan	0.2	0.3	0.4	0.6	0.6
Other	0.3	*	*	0.5	0.6
International	6.2	4.8	4.8	2.6	2.2
NB: European Community	44.9	45.7	47.2	48.3	52.4

* Suppressed to avoid disclosure of data of individual companies

Sources: Bureau of Economic Analysis and The Boston Company Economic Advisors, Inc.

Table 5
Sales of Services to Foreign Persons By Nonbank
Majority-Owned Foreign Affiliates of U.S. Companies
(Percent Change)

	1987	1988	1989	1990	1990: Change from 1986
All Countries	19.4	15.9	-1.6	19.6	62.9
Canada	15.3	7.2	-4.8	0.0	17.6
Europe	21.7	19.4	1.4	29.0	90.3
Belgium	26.6	10.1	14.3	27.4	102.9
France	*	15.4	15.2	24.9	*
Germany	24.1	16.7	-2.8	21.8	71.6
Italy	*	*	15.6	35.5	136.3
Netherlands	16.4	11.9	-24.3	52.6	50.4
Norway	6.5	5.4	44.1	6.6	72.3
Spain	29.1	*	*	24.0	120.4
Switzerland	29.3	23.7	-10.1	23.4	77.6
United Kingdom	19.0	26.2	0.1	28.9	93.7
Other	*	*	63.8	22.7	*
Latin America and Other Western Hemisphere	20.9	-4.0	-23.7	31.8	16.8
South and Central America	14.4	11.1	5.0	10.8	47.9
Argentina	-6.0	-3.6	27.2	-8.4	5.6
Brazil	37.4	23.0	20.1	31.7	167.2
Mexico	12.3	25.2	11.2	-13.1	35.9
Venezuela	11.3	4.4	-34.1	11.6	-14.6
Other	6.2	-3.1	-16.0	4.3	-9.9
Other Western Hemisphere	24.9	-12.6	-44.4	60.5	-2.5
Other Countries	26.9	25.5	14.3	9.3	99.0
Africa	-17.8	-0.8	-26.4	11.4	-33.2
Middle East	4.9	0.4	-7.5	6.1	3.4
Asia and Pacific	33.9	29.4	17.7	9.5	123.1
Australia	26.8	20.2	1.0	3.9	59.8
Hong Kong	3.3	17.2	56.9	10.0	109.0
India	-21.1	*	*	*	*
Indonesia	6.5	20.4	-11.3	62.4	84.8
Japan	47.3	38.2	16.5	4.2	147.1
Korea	3.5	16.9	*	*	221.1
Malasia	-74.3	6.7	18.0	5.7	-65.7
New Zealand	-40.8	36.6	17.5	12.6	154.4
Philippines	7.1	2.7	*	*	*
Singapore	*	*	*	57.1	215.0
Taiwan	48.3	52.5	49.5	28.2	333.5
Other	*	*	*	41.8	252.7
International	-8.0	17.1	-46.9	1.8	-41.8
NB: European Community	21.5	19.7	0.7	29.8	90.0

* Suppressed to avoid disclosure of data of individual companies

Sources: Bureau of Economic Analysis and The Boston Company Economic Advisors, Inc.

THE COALITION OF SERVICE INDUSTRIES was formed in 1982 to increase public awareness of the expanding role of the service sector in the U.S. economy. One of the priorities of the Coalition is to improve the adequacy of statistical programs in their measurement and analysis of the service sector.

THE SERVICE ECONOMY is a product of the CSI Task Force on Data Collection and Statistical Improvement. Comments or suggestions should be directed to Maria Eli of CSI at 202/775-1723.

Table 1
Summary of the Service Economy
(Monthly Indicators)

	1992:7	1992:8	1992:9	1992:10	1992:11	1992:12	1987	1988	1989	1990	1991
Total Employment—Millions of Persons	108.6	108.5	108.5	108.6	108.6	108.7	102.2	105.5	108.3	109.8	108.3
Services	85.1	85.1	85.2	85.3	85.4	85.4	77.5	80.4	83.0	84.8	84.5
Goods	23.5	23.4	23.3	23.3	23.3	23.3	24.7	25.2	25.3	25.0	23.8
Total Wages and Salaries—Billions of Dollars	2911.2	2930.9	2928.3	2948.9	2969.8	NA	2261.2	2443.0	2586.4	2742.8	2812.2
Services	2168.5	2187.4	2187.4	2200.4	2223.3	NA	1609.4	1744.0	1862.3	1997.2	2074.8
Goods	742.7	743.5	740.9	748.5	746.5	NA	651.8	699.0	724.1	745.6	737.4
Total Compensation											
%Change, Year-Over-Year	3.4	3.7	3.4	4.0	4.6	NA	7.4	8.0	5.9	6.0	2.5
Services	4.4	4.9	4.5	5.2	5.8	NA	9.0	8.4	6.8	7.2	3.9
Goods	0.7	0.6	0.2	0.6	1.2	NA	3.7	7.2	3.6	3.0	-1.1
Consumer Price Index—All Urban											
%Change, Year-Over-Year	3.2	3.1	3.0	3.2	3.0	NA	3.7	4.1	4.8	5.4	4.2
Services	3.9	3.9	3.6	3.8	3.8	NA	4.1	4.6	4.9	5.5	5.1
Goods	2.2	2.3	2.2	2.4	2.1	NA	3.2	3.5	4.7	5.2	3.1
Services Leading Indicator Index (%)*	1.4	1.8	-0.6	1.1	2.8	NA	6.2	1.6	2.9	1.7	4.3
Leading Economic Indicator Index—Total (%)*	3.2	2.1	1.6	2.2	3.3	NA	5.8	1.7	1.3	-0.4	-0.3
Services Coincident Indicator Index (%)*	0.3	1.6	0.3	1.2	2.6	NA	3.6	3.8	2.7	2.0	-0.4
Service Industries Stock Price Index	137.5	136.3	138.8	139.9	145.0	NA	95.6	88.3	111.5	110.7	122.3
S&P 500 Stock Price Index	415.0	417.9	418.5	412.5	422.8	435.6	286.8	265.8	322.8	334.6	376.2

* Growth rate expressed in six-month smoothed percent changes at annual rate.

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Center for International Business Cycle Research and The Boston Company Economic Advisors, Inc.

Table 2
Summary of the Service Economy
(Percent Change, SAAR, Except Where Indicated)

	1991:2	1991:3	1991:4	1992:1	1992:2	1992:3	1987	1988	1989	1990	1991
Gross Domestic Product (87 Dollars)	1.7	1.2	0.6	2.9	1.5	3.4	3.1	3.9	2.5	0.8	-1.2
Services	2.7	1.0	0.8	1.8	0.4	2.4	3.8	3.6	2.3	2.5	1.4
Goods and Construction	0.6	1.5	0.2	4.2	2.8	4.5	2.4	4.2	2.8	-0.8	-3.8
Goods	0.9	2.3	-0.5	1.7	2.7	6.2	3.1	5.5	3.7	-0.3	-2.3
Construction	-1.1	-2.2	3.9	16.2	3.6	-3.1	-0.2	-0.4	-0.8	-3.1	-9.9
GNP—Product Measure (82 Dollars)	—	—	—	—	—	—	3.4	4.5	2.5	NA	NA
Services	—	—	—	—	—	—	3.0	4.3	3.2	NA	NA
Goods	—	—	—	—	—	—	4.3	4.7	1.1	NA	NA
Manufacturing	—	—	—	—	—	—	6.1	7.7	1.3	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	0.9	-1.4	0.6	NA	NA
Consumption Expenditures	2.0	1.5	-0.3	5.1	-0.1	3.7	2.8	3.6	1.9	1.2	-0.6
Services	3.0	1.2	2.3	2.2	1.2	3.1	3.9	3.7	1.9	1.9	1.1
Goods	0.7	1.9	-3.4	8.6	-1.7	4.5	1.6	3.5	1.9	0.2	-2.6
Plant and Equipment Expenditures—Current Dollars	-6.7	1.2	2.5	4.5	3.9	5.0	2.5	11.0	11.4	5.3	-0.7
Services	-6.0	13.6	2.1	14.9	8.3	7.2	2.9	8.3	11.3	5.2	1.6
Goods	-8.1	-17.2	3.2	-12.5	-4.1	0.8	1.7	15.7	11.6	5.5	-4.5
Corporate Profits—Current Dollars											
%Change, Year-Over-Year	-7.1	0.1	3.8	8.4	8.9	3.4	20.2	15.9	-1.9	3.6	-1.5
Services	2.9	12.0	11.4	7.0	-0.2	-9.5	8.2	4.7	2.8	6.7	8.0
Goods	-22.6	-17.0	-9.1	11.3	27.6	28.5	47.6	34.9	-8.0	-1.0	-16.5

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics and The Boston Company Economic Advisors, Inc.

Table 3
Summary of the Service Economy
 (Billions of 1987 Dollars, SAAK, Except Where Indicated)

	1991:2	1991:3	1991:4	1992:1	1992:2	1992:3	1987	1988	1989	1990	1991
Gross Domestic Product (87 Dollars)	4817.1	4831.8	4838.5	4873.7	4892.4	4933.7	4540.0	4718.6	4838.1	4877.5	4821.0
Services	2497.3	2503.7	2509.0	2520.1	2522.4	2537.5	2267.3	2349.7	2403.8	2463.0	2497.6
Goods and Construction	2319.7	2328.1	2329.4	2353.5	2370.0	2396.1	2272.7	2368.9	2434.2	2414.5	2323.4
Goods	1907.6	1918.3	1915.7	1924.0	1936.7	1966.2	1794.5	1892.5	1961.7	1956.8	1911.2
Construction	412.1	409.8	413.7	429.5	433.3	429.9	478.2	476.3	472.4	457.7	412.2
GNP—Product Measure (82 Dollars)	—	—	—	—	—	—	3845.3	4016.9	4117.7	NA	NA
Services	—	—	—	—	—	—	2583.0	2695.1	2782.0	NA	NA
Goods	—	—	—	—	—	—	1262.3	1321.8	1335.7	NA	NA
Manufacturing	—	—	—	—	—	—	852.2	917.4	929.0	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	410.1	404.4	406.7	NA	NA
Consumption Expenditures	3239.3	3251.2	3249.0	3289.3	3288.5	3318.4	3052.2	3162.4	3223.3	3260.4	3240.8
Services	1781.8	1787.0	1797.4	1807.3	1812.9	1826.6	1637.4	1698.5	1731.0	1764.6	1783.7
Goods	1457.5	1464.2	1451.6	1482.0	1475.6	1491.8	1414.8	1463.9	1492.3	1495.8	1457.1
Plant and Equipment Expenditures—											
Current Dollars	525.0	526.6	529.9	535.7	540.9	547.5	409.2	454.2	506.0	532.7	528.9
Services	328.4	339.0	340.8	352.9	359.9	366.2	260.4	282.2	313.9	330.2	335.4
Goods	196.6	187.6	189.0	182.9	181.0	181.3	148.8	172.1	192.1	202.5	193.5
Corporate Profits—Current Dollars	275.9	270.0	270.2	292.0	300.4	279.3	233.9	271.2	266.0	275.5	271.4
Services	185.6	178.2	182.7	194.5	185.2	161.3	146.8	153.7	157.9	168.5	182.1
Goods	90.3	91.8	87.5	97.5	115.2	118.0	87.1	117.4	108.0	107.0	89.3
Current Account Balance—											
Quarterly Rates	2.4	-11.1	-7.2	-5.9	-17.8	-14.2	-163.5	-126.7	-101.1	-90.4	-3.7
Services Balance	10.8	12.0	13.1	13.8	12.6	15.6	8.2	12.7	25.8	32.1	45.3
Private Services Balance *	12.6	13.4	14.0	14.8	13.6	-16.4	13.4	20.3	33.9	41.1	52.2
Exports	37.7	39.0	40.2	41.6	41.0	41.6	86.8	100.7	118.0	138.1	152.3
Imports	-25.2	-25.6	-26.1	-26.8	-27.4	-25.1	-73.4	-80.4	-84.1	-97.0	-100.0
Merchandise Trade Balance	-16.4	-20.2	-18.5	-17.2	-24.6	-26.5	-159.6	-127.0	-115.7	-108.9	-73.4

* Private Services Balance is the balance on Service exports and imports excluding receipts and payments on investments and government transactions.

Sources: Bureau of Economic Analysis and The Boston Company Economic Advisors, Inc.

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The Clinton Economic Plan and Budget Program: Progress or Problem?

Allen Sinai

The new Administration's Economic Plan represents a blueprint for a number of big wave changes in the U.S. economy and society.¹ Among them are:

- 1) *a focus on the long-run* for the economy and its macro- and microeconomic problems—in stark contrast to the more typical short-term view of policymaking in Washington;
- 2) *the active use of fiscal measures* in economic policy—unlike the nearly exclusive reliance on monetary policy in recent years;
- 3) *a more prominent role for the federal government* in order to achieve perceived economic and social goals—a change from the laissez-faire approach of the past including heavy reliance on market forces and the market mechanism;
- 4) *a dramatic change in the direction of the federal budget deficit* through a serious and bona fide deficit reduction plan involving higher taxes, reduced spending and lower debt service;
- 5) *an emphasis on rebuilding the basic building blocks of society* and the use of government as a driving force to this end by attempting to a) increase the quality and quantity of the workforce, b) improve public sector infrastructure, c) raise the capital stock of the private sector, d) encourage research and development, e) improve technology, and f) set a positive backdrop for small business—in contrast to years of stressing a consumption-based prosperity;
- 6) *attention to some difficult and complicated microeconomic problems* such as health care, welfare reform, education and training—problems left on the back burner of international and domestic policy priorities in recent years. Progress in these micro areas can help macroeconomic performance by reducing costs, increasing economy-wide efficiency, and improving productivity.

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These new directions are themselves the outgrowth of previous trends that reflected the anemic and depressed performance of the U.S. economy from 1989 to 1992. The Plan should be applauded as a step toward sustaining noninflationary growth in the long-run, reducing the unproductive burden of deficits, debt and debt service in the public and private sectors, raising productivity and potential output, and increasing the U.S. standard-of-living.

No set of proposals with so many possible effects, so many affected interest groups, and calling for so many sacrifices can be satisfactory to all. Nor should it be expected that the proposals are error-free or without need of modification. Debate, analysis, and modification are signs of a healthy society. As long as the program is not derailed, changes can be a sign of strength.

The Clinton Plan and Budget is a step toward sustaining and potentially extending the revival and renewal of the U.S. economy that has been building, even as a depressed system has underperformed. The Congress and the American people should try to view the program constructively, as a blueprint for dealing with some of the most complicated and difficult macroeconomic and microeconomic problems the country has ever faced.

The Basics

The major thrust of the plan appears quite acceptable. The Administration and the Congress should move forward with the Program, passing it quickly as an integrated whole, with only a little fine-tuning. For too long, the various constituencies of the U.S. have failed to agree on policies and actions, or taken extraordinarily long to reach agreement. This propensity has promoted gridlock and prevented progress.

The Clinton Economic Program (CEP)

The Clinton Economic Program (CEP) is far-reaching in scope, with several main objectives, not all of them consistent on a contemporaneous basis. *The main inconsistency lies in attempting to simultaneously "grow the economy" while reducing federal budget deficits through tax increases and net reductions in government spending.*

Contemporaneously, fiscal restraint or deficit reduction reduces growth, and fiscal stimulus that increases the deficit adds to growth. Longer-run deficit reduction reduces debt and debt service burdens, creating a backdrop for improved economic expansion and possibly stimulating lower interest rates that will enhance capital formation and productivity growth. As fiscal restraint is put into place through higher taxes and reduced government spending, however, guard must be taken against a "fizzling-out" of the economy.

Thus, it is very important to look for other ways to raise growth and reduce the federal budget deficit than through taxes and spending. Alternatives include reducing costs and eliminating inefficiencies, higher productivity, more lending by financial institutions, or stronger economic growth abroad. If measures are used that do not increase the deficit, the higher growth can produce more tax revenues and reduce some transfer payments, and thus reduce the deficit at the same time that the economy grows.

Of course, reducing interest rates through easier monetary policy is yet another way to raise growth without increasing the deficit. Easier monetary policy would reduce the deficit by increasing

tax receipts and lowering the government's net interest payments. However, given the institutions and arrangements that currently surround central bank monetary policy, this course could be taken only if economic growth were weaker than desired and inflation stayed relatively low.

The CEP is not just economic in nature, but sets out priorities and directions that could affect society for many years. First, the Plan provides "short-run stimulus" to create more jobs and growth in the near-term through nearly \$30 billion of extra spending, transfers and business equipment tax credits in 1993 and 1994. The stimulus provided for each year is \$14.7 billion.

Spending is divided into \$0.7 billion for infrastructure, nearly \$1.1 billion on summer youth employment and Head Start, a little over \$3 billion for the extension of jobless benefits, \$3.4 billion scattered across the categories of education (Pell Grants), health and human services, SBA loan guarantees and technology. In addition, there is a \$6.4 billion tax incentive from a 7 percent temporary equipment investment tax credit. The equipment investment tax credit is spread over 1993 and 1994, at \$6.4 billion each year. Another \$5.6 billion of spending on infrastructure, transfers for summer jobs, and spending for various other programs is indicated for 1994.

These amounts are small relative to the \$6 trillion U.S. economy and serve as a cushion for a possible economic slowdown. As the investment tax credit is not refundable, many corporations—especially small business—may not be able to use it. The jobs that are created through summer jobs programs and infrastructure outlays may not be permanent.

The "investment" portion of the Plan is achieved through planned increases in government spending, a reallocation of spending priorities, and certain changes in the tax system. The funding of this part of the Plan, which is meant to enhance the basic building blocks and long-run productive potential of the economy, comes from higher taxes, and reductions in spending—especially in defense, entitlements, and hopefully in government operations. This emphasis is quite different from many other previous fiscal programs, where the primary goal was to stimulate consumption and business capital in the short-run.

A significant dose of deficit reduction is proposed, aimed at putting the federal budget deficit on a downward course with permanent tax increases and government spending reductions, the proceeds of which would go toward reducing the deficit. Themes relating to the "long-run" are stressed, with thrusts toward investment and deficit reduction, although many of the items indicated as investment have an uncertain outcome and payoff.

Generally, agreement now exists that U.S. economic problems have been *both* structural (longer-run) and cyclical (shorter-run) in nature, in contrast to past episodes that primarily were a consequence of the short-run business cycle.² Given structural problems as a major source of poor economic performance, the Plan strikes the right chord in its emphasis on the long-run.

The Plan returns to using government fiscal policy as an instrument for achieving desired goals. This is a change from the last twelve years when the role of government in the private sector was intended to be diminished. But to the extent that government facilitates enhancement of the quality and quantity of labor, an increase of capital stock, more research and development, the rebuilding of infrastructure, and the reduction of distortions in the economic system, there likely will be a net benefit—even with some inefficiencies and a risk of too much government regulation.

There is potential for real costs from more active intervention by the federal government. Inefficiency in the government sector remains the greatest impediment to smooth and optimal economic performance. The Plan would be better if it stressed more specific efficiencies and reductions in government spending and operations, rather than relying heavily on increased taxes to fund the investments and deficit reductions.

The magnitude and timing of payoffs from the Program's investments are uncertain, however, the efficiencies and savings from further reducing government spending and downsizing the federal sector are clear and permanent. Gains in government efficiency through the kind of downsizing, restrictions, changes in management, limitations to bureaucracies, and improved technology that the private sector has embraced would not only save and release funds from lower productive uses, but increase the efficiency, productivity and potential output of the economy as a whole.

Congress should press the Administration to reduce the operating budget of the federal government even more, to further streamline many departments, reduce staff size, and question function necessity. The same thinking should be applied to Congress itself. Much of the U.S. private sector has gone through this exercise, but the federal, state and local government sectors have not.

Finally, the Plan emphasizes human capital, infrastructure improvement, capital spending, technology and research, and small business. This is appropriate if the goal is to enhance productive efficiency, to lift the long-run growth potential of the U.S., and to improve international competitiveness.

Getting Back to Work?

Over the long-run, the Program probably will help create permanent, high-quality, high-paying jobs. In the short-term, this year and next, the stimulus of summer jobs opportunities and infrastructure spending should increase jobs and put more people back to work.

But the permanent creation of new jobs is unsure since the costs of deficit reduction must be some loss of growth and jobs, along with the benefits from the investments in people, education and training, infrastructure, technology, and in small business.

Since the payoffs from the investment side of the Program and from deficit reduction can take a long time, the *intermediate-term could well produce net losses in growth and jobs*. Any loss of growth, and even of jobs, from higher taxes and net reductions in spending by the federal government would represent the short- and intermediate-term costs associated with reducing the deficit, debt and debt service burdens which have existed for the last two decades. It is certainly possible that the beneficial effects of deficit reduction will outweigh the negative effects from fiscal restraint. However, some help from overseas economies in the form of reductions in domestic interest rates and fiscal stimulus, or from the Federal Reserve in the form of reduced interest rates may be needed.

Ideally, to maintain the same growth path in the economy with the CEP that would have existed without it, an offsetting and compensating easing of monetary policy should take place. It is important that the overall magnitude of the deficit reduction not be too great, since too much deficit reduction could topple the economy and prevent other areas from providing enough of an offset. As fiscal restraint unfolds, the central bank should ease monetary policy to offset the slower growth and job losses that are a cost of deficit reduction.

There are few choices for the U.S. economy other than the CEP. The United States must embark on a course of action to reduce the budget deficit and shift to more saving and investment in both the private and public sectors. This strategy will create permanent, high-quality, high-paying jobs and the maximum potential output and standard-of-living for all Americans. A fundamental question is whether the American public will have the patience, and policymakers in Washington the courage, to stick with the fiscal policy that is necessary to offset whatever job loss may occur as a consequence.

Economic Analysis of the Clinton Plan

Table 1 summarizes the Clinton Program and the preliminary version of the Administration budget. The CEP proposes a total of \$325 billion in deficit reduction from 1994-97, with nearly \$13 billion of net fiscal stimulus in fiscal year 1993. Reductions in the budget deficit thereafter range from \$39 billion in FY1994 to \$140 billion in FY1997.

Economic growth will probably be shaved at the beginning, increasing in later years as the planned deficit reduction occurs. This makes prospects for runaway growth, or a boom, much less likely and increases the odds that no significant reacceleration of inflation might occur for many years. Then the possibility of any Federal Reserve tightening decreases, and a long period of relatively low, short-term interest rates can be seen.

Thus, the "vision" has to be slower growth, a slower approach to full employment, less chance of accelerating inflation from the demand-side, more chance that the Federal Reserve will have to hold interest rates low, and a continuing low profile of interest rates. The fixed income markets have quickly absorbed these notions.

Short-Run Stimulus—Is It Needed? Current Economic Performance and Prospects

Based on the recent performance of the economy, (3.4 percent growth in the third quarter of last year and 4.8 percent in the fourth quarter), the need for fiscal stimulus appears questionable. It is not surprising, however, that a dose of short-run fiscal stimulus was proposed by the Administration to help insure continuing economic recovery and create jobs. The Plan's stimulus actually is very small—too little to raise growth significantly or cause any acceleration of inflation—but enough to provide some insurance against a possible slowdown of the economy as the year moves on. Such a risk does exist and has shown up in some recent data, including declining consumer confidence, weakness in the growth of money and credit, and some fading in manufacturing activity.

After a slowdown in the first half of this year, the economy benefits from the stimulus of additional spending and transfers in the third and fourth quarters, extending the solid economic recovery that began late last summer. Without the short-run fiscal stimulus, real economic growth would be expected to fade to around 2-1/2 percent. The upturn probably is self-sustaining and entrenched now. But without this minimal dose of short-run fiscal stimulus—and even with it—some risk remains, especially given very weak economies overseas, continuing heavy reductions in defense spending, and only modest job creation.

The economic expansion has shown a promising start. Lots of familiar signs of a real upturn have appeared, including a surge in the consumption of big-ticket items, rising home sales, increased housing starts and pickup in residential construction, strong producers' durable equipment spending, and lean inventory-sales ratios.

The upturn has been led by the private sector with weak outlays in the public sector. This is another healthy development as resources are reallocated from the public to private sector. Adjustments to the unwinding of the defense industry, while especially painful in certain regions, are continuing. The financial positions of households and businesses continue to improve. The banking system is healthy again. Low inflation and a low profile of interest rates are setting the stage for a long expansion. Nevertheless, the economy is unlikely to boom with so much weakness overseas, and so many adjustments to be worked out. This is evidenced in the continuing restructuring and significant downsizing of many corporations.

Deficit Reduction—Linchpin of the CEP

Over the four years from 1994 to 1997, the net of the Clinton investment and deficit reduction proposals provide \$39 billion, \$54 billion, \$92 billion and \$140 billion respectively of structural budget deficit reductions—a total of \$325 billion. Net stimulus in FY93 is slated to be \$13 billion.

To achieve deficit reductions, tax increases and spending reductions totalling \$704 billion over the four-year period are indicated, and planned spending increases and tax cuts totalling \$169 billion are proposed. The calculations, shown in Table 1, combine the short-run stimulus with the investment and long-run deficit reduction proposals. The table also includes estimates on reductions in debt service costs because outstanding federal government debt is generally less, assuming no change of interest rates.

Though legitimate disagreements may occur over where certain items are classified, e.g., social security (85 percent of benefits taxed instead of 50 percent for higher income recipients, fees for government services, and similar items, all treated as expenditures), the net structural deficit reduction is what counts the most. Government purchases, transfers, and tax increases have different economic effects on growth, inflation, profits, and work effort. But the differences are not large enough to change the thrust and direction of the economic effects from the CEP.

Certainly, it is reasonable to assume that the Program will *not* be enacted and realized exactly as proposed. Tax receipts may be overestimated as the private sector scrambles to avoid paying the higher taxes, some spending reductions may be limited or eliminated by Congress, and the spending increases may exceed estimates. Initial examination of the Program detail suggests possibly \$50 billion of such items, perhaps reducing the four-year cumulative deficit reductions to \$275 billion or even \$250 billion, instead of \$325 billion.

For example, if the deliberations on taxes continue to August or September, the Administration and Congress may delay those tax increases that are retroactive to January 1, starting them perhaps on October 1, in the new fiscal year. In such a situation, shifting 1994 income into 1993 could lower tax receipts from the Program. The resulting deficit reduction in 1994 would be lower than estimated under current assumptions.

“Budget Aficionados” are likely to declare that the Clinton Program will produce a significant, though insufficient, reduction in the structural budget deficit. The Program is more oriented toward deficit reduction than as a stimulus to jobs. There is, however, one “Grand Experiment.” This is the so-called “investment” in infrastructure, education and training, human capital, technology, com-

munity development and housing. Although the outcome is uncertain, the Program should be recognized as a serious attempt to reduce the deficit while moving in the right direction.

Estimates of Deficit Reductions Could be Buttressed by Other Factors

- 1) The Administration estimates reductions in net interest costs from less debt outstanding, but at the same interest rates before and after the CEP. If interest rates decline significantly, as has occurred recently, the savings on net interest could be underestimated.
- 2) The economic assumptions used to calculate the revenues and expenditures on both the unified and structural (full employment) budget bases are conservative and are below the Office of Management and Budget (OMB) and our own projections. More cautious economic assumptions produce less tax revenue and higher outlays due to transfer payments.
- 3) The position of interest rates is of considerable importance since a permanent change in the level of nominal interest rates can change the net interest costs of the federal government at full employment, and will affect the structural budget deficit. The decline of interest rates since the Program was announced has not been factored into the Administration calculations of the budget deficits.
- 4) Finally, if the CEP results in higher productivity and greater potential output in the out-years, the tax receipts produced by the economy at full employment would be greater. This would permanently lower the structural budget deficit.

Some Concluding Perspectives

Generally, the economic impact of the Clinton Economic Program, if enacted as is, should be to strengthen the economy in 1993, followed by weakening, with reasonably stable inflation, a lower profile of interest rates, fewer jobs, a lower federal budget deficit, improving business and household balance sheets, greater aftertax profits, initial lower exchange rates, improved economic activity for rate-sensitive sectors and activities, and greater potential output in the outyears.

A loss of jobs, as indicated, runs counter to one of the major goals of the Clinton Administration. Certainly, the short-run stimulus will produce more jobs in 1993 and probably 1994, if only from the special summer programs and their aftermath. But beyond that, the fiscal restraint probably will outweigh the short-run stimulus and effects of lower interest rates.

Should the central bank ease monetary policy at any time from 1994 to 1997 compared with its baseline policy, more growth and lower interest rates would occur. High tax receipts and lower interest rates will then reduce the deficit. Should the economy slide and the Federal Reserve react slowly the deficit would rise, although from cyclical not structural effects.

Another unknown has to do with programs and policies that might stimulate the economy without raising the deficit, such as a relaxed stance by regulators on the banking industry and lending. To the extent this and other similar types of actions take effect, the economy could do better without any cost to the deficit, cyclically generating more tax receipts than expected at the outset.

By-and-large, the proposed reductions in the deficits must be regarded as a potential turning point of great importance. It is a major step toward reversing the long trend of increasing deficits, debt and debt service .

Lower interest rates resulting from expectations of fiscal restraint, will prevent the restrictive effects of the economic program from creating a recession. But simulations with the Sinai-Model Econometric Model of the U.S. Economy do not show that interest rates drop enough, nor does the economy respond enough, to fully offset the fiscal restraint of the CEP. Easier monetary policy in response to the fiscal restraint is shown to have beneficial effects on growth, jobs and the unemployment rate, although with some additional inflationary effect.

¹ Executive Office of the President of the United States, A Vision of Change for America, U.S. Government Printing Office, February 17, 1993.

² See Allen Sinai, "What's Wrong With the Economy?" Challenge, November-December 1992, pp. 1-15

Table 1
Clinton Budget Plan

	Fiscal Years						1994-1997
	1993	1994	1995	1996	1997	1998	
OUTLAYS:							
Discretionary Spending - Total							
Clinton Current Services Estimate	550.3	548.3	557.3	564.2	573.4	584.0	
Clinton Budget Proposal	556.0	548.1	554.7	557.5	551.5	565.2	
Defense Discretionary							
Clinton Current Services Estimate	294.3	284.4	284.3	284.6	286.5	289.0	
less: Cuts	0.0	6.7	11.7	19.7	37.4	36.3	75.5
Clinton Budget Proposal	294.3	277.7	272.6	264.9	249.1	252.7	
Nondefense Discretionary							
Clinton Current Services Estimate	256.0	263.9	273.0	279.6	286.9	295.0	
less: Cuts	-0.8	4.5	10.2	15.4	20.2	23.0	50.3
Programs That Don't Work	0.0	0.3	1.1	2.2	2.9	3.2	6.6
Eliminating Subsidies	0.0	0.7	1.2	1.6	1.8	1.8	5.2
Managing Government	0.0	4.0	7.5	10.3	13.2	14.8	35.0
Fed pay freeze and under-indexing	0.0	1.4	2.0	2.3	2.7	3.0	8.3
Cut 100,00 Federal employees	0.0	0.9	2.2	2.3	2.5	2.6	7.9
Other Administrative Savings	0.0	0.7	1.4	2.2	3.5	3.6	7.7
Other items	0.0	1.0	2.0	3.5	4.5	5.7	11.0
Streamlining Government	0.0	0.6	1.6	2.5	3.3	4.2	7.9
Technical Adjustments	-0.8	-1.1	-1.2	-1.1	-1.0	-1.0	-4.4
plus: Stimulus (Spending Items Only)	5.1	5.9	2.1	0.8	0.4	0.2	9.3
Infrastructure	0.7	2.5	0.6	0.2	0.2	0.1	3.6
Summer of Opportunity Program	2.1	1.0	0.0	0.0	0.0	0.0	1.0
equals: Summer of Opportunity total	5.3	1.0	0.0	0.0	0.0	0.0	1.0
less: net Unemp Comp Extension	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Technology Investments	0.6	0.2	0.1	0.0	0.0	0.0	0.3
Urban Development and Housing	0.9	1.7	0.9	0.3	0.2	0.1	3.1
Rural Development	0.3	0.1	0.1	0.1	0.0	0.0	0.4
Environment/Energy	0.5	0.3	0.3	0.2	0.1	0.0	0.9
plus: Investment (Spending Items Only)	0.0	5.4	17.9	28.6	36.4	41.6	88.3
Rebuild America—Infrastructure	0.0	2.2	7.2	11.2	14.1	16.0	34.7
Lifelong Learning	0.0	2.0	6.6	11.2	14.7	16.7	34.5
Rewarding Work	0.0	0.2	0.5	0.7	0.9	0.9	2.4
equals: Rewarding Work total	0.0	2.6	0.5	0.7	0.9	0.9	4.8
less: Unemp Comp Extension	0.0	2.4	0.0	0.0	0.0	0.0	2.4
Health Care	0.0	1.0	3.4	5.3	6.6	7.8	16.2
equals: Health Care total	0.0	2.0	5.4	8.3	9.6	10.8	25.2
less: Food Stamps	0.0	1.0	2.0	3.0	3.0	3.0	9.0
Private-Sector Incentives	0.0	0.1	0.1	0.2	0.2	0.2	0.5
Clinton Budget Proposal	261.7	270.4	282.1	292.6	302.4	312.5	
Mandatory Spending							
Clinton Current Services Estimate	713.7	753.4	789.4	828.9	894.5	959.0	
less: Net cuts	0.0	4.3	9.5	20.8	29.9	33.9	64.5
Proposed Entitlement Savings	0.0	8.7	17.9	30.8	41.7	47.5	99.1
less: Revenue items	0.0	2.8	5.8	6.7	7.9	8.7	23.1
Shorten maturity of debt	0.0	1.6	2.7	3.3	3.9	4.9	11.5
plus: Increases	3.2	3.4	2.0	3.0	3.0	3.0	11.4
Food Stamps	0.0	1.0	2.0	3.0	3.0	3.0	9.0
Net Unemp Comp Extension	3.2	2.4	0.0	0.0	0.0	0.0	2.4
Summer of Opportunity (Stimulus)	3.2	0.0	0.0	0.0	0.0	0.0	0.0
Rewarding Work (Investment)	0.0	2.4	0.0	0.0	0.0	0.0	2.4
Clinton Budget Proposal	717.0	752.7	782.1	811.5	868.0	928.5	

Table 1 (Con't)

	Fiscal Years						1994-
	1993	1994	1995	1996	1997	1998	1997 Net
Interest							
Clinton Current Services Estimate	201.9	214.1	232.8	253.6	275.1	299.6	
Savings	0.0	1.6	5.7	10.3	17.9	26.9	35.5
Shorten maturity of debt	0.0	1.6	2.7	3.3	3.9	4.9	11.5
Reduced debt issuance	0.0	0.0	3.0	7.0	14.0	22.0	24.0
Clinton Budget Proposal	202.1	212.0	227.2	243.3	257.4	272.7	
Total Spending							
Clinton Current Services Estimate	1465.9	1515.8	1579.5	1646.7	1743.0	1842.6	
less: Cuts	-9.2	3.0	15.5	34.4	66.1	76.2	119.0
Clinton Budget Proposal	1475.1	1512.8	1564.0	1612.3	1676.9	1766.4	
REVENUES:							
Clinton Current Services Estimate	1146.8	1214.4	1283.6	1349.7	1396.7	1452.8	
Increases:	3.0	48.8	56.4	72.4	89.8	89.7	267.4
Social Insurance							
Medicare wage base increase	0.0	2.8	6.0	6.4	6.8	7.2	22.0
Other	3.0	46.0	50.4	66.0	83.0	82.5	245.4
Tax 85% of high-income Social Security	0.0	2.7	5.6	6.2	6.9	7.7	21.4
Raise individual income tax rates	1.8	27.7	19.9	22.9	26.3	27.7	96.8
Energy tax	0.0	1.5	8.9	16.4	22.3	22.4	49.1
Increase corporate tax rate	0.4	7.7	5.4	5.5	5.7	5.8	24.3
Cap possessions tax credit	0.0	0.2	0.9	1.6	2.1	2.2	4.8
Service industry non-compliance init.	0.0	0.1	0.6	1.3	1.9	2.2	3.9
Restrict business meal deduction	0.0	1.8	3.2	3.4	3.7	4.0	12.1
Extend 2.5 cent/gal gas tax	0.0	0.0	0.0	2.6	2.6	2.6	5.2
International tax provisions	0.0	0.8	1.6	1.9	2.1	2.2	6.4
Other Revenue Raising provisions	0.8	3.4	4.1	3.7	4.5	3.9	15.7
Other provisions affecting receipts	0.0	0.1	0.2	0.5	1.0	1.0	1.8
Corporate estimated tax rules	0.0	0.0	0.0	0.0	3.9	0.8	3.9
Reductions:	6.4	12.8	17.0	14.9	15.2	16.9	59.9
Personal	0.0	0.9	6.3	6.5	6.8	7.0	20.5
Stimulus	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investment	0.0	0.9	6.3	6.5	6.8	7.0	20.5
Rewarding Work							
Earned Income Tax Credit	0.0	0.5	6.2	6.4	6.7	6.9	19.8
Health Care							
Health ins. ded. for self-employed	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Private-Sector Incentives							
AMT exception for gifts	0.0	0.1	0.1	0.1	0.1	0.1	0.4
Business	6.4	11.9	10.7	8.4	8.4	9.9	39.4
Stimulus	6.4	0.0	0.0	0.0	0.0	0.0	0.0
Investment Tax Credit	6.4	0.0	0.0	0.0	0.0	0.0	0.0
Investment	0.0	11.9	10.7	8.4	8.4	9.9	39.4
Rebuild America- Infrastructure	0.0	1.9	2.8	3.8	4.5	5.3	13.0
Enterprise Zones	0.0	0.1	0.3	0.8	1.2	1.7	2.4
Extend R&E credit	0.0	1.2	1.5	1.8	2.0	2.2	6.5
Mortgage revenue bonds	0.0	0.1	0.1	0.2	0.2	0.2	0.6
Extend low-inc housing tax credit	0.0	0.2	0.5	0.8	1.1	1.4	2.6
Real estate investment	0.0	0.3	0.4	0.2	0.0	-0.2	0.9
Lifelong Learning	0.0	0.6	0.8	0.9	1.0	1.2	3.3
Employer Provided Education Assist.	0.0	0.4	0.5	0.5	0.5	0.6	1.9
Targeted jobs tax credit	0.0	0.2	0.3	0.4	0.5	0.6	1.4
Private-Sector Incentives	0.0	9.4	7.1	3.7	2.9	3.4	23.1
Targeted capital gains exc	0.0	0.0	0.1	0.2	0.2	0.2	0.5
Small-business invest. tax credit	0.0	2.8	3.1	3.0	3.3	3.5	12.2
AMT depreciation preference	0.0	0.2	0.3	0.4	0.4	0.3	1.3
Temp. increment invest. tax credit	0.0	6.4	3.6	0.1	-1.0	-0.6	9.1
Clinton Budget Proposal	1143.2	1250.5	1322.8	1407.5	1471.0	1525.6	
DEFICIT:							
Clinton Current Services Estimate	-319.1	-301.4	-295.9	-297.0	-346.3	-389.8	
Clinton Claimed Savings	-12.8	39.1	54.7	92.2	140.4	149.0	326.4

SERVICES ECONOMIC HIGHLIGHTS

CSI

Allen Sinai

Chief Economist, Boston Company Economic Advisors, Inc.

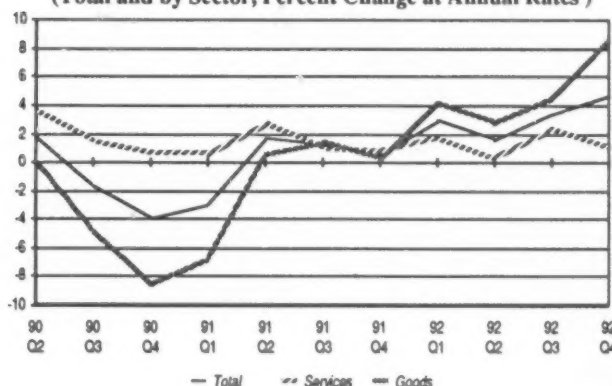
The Service Economy At a Glance—Better Days Ahead!

- **Service Gross Domestic Product (GDP) Measured by Expenditures** increased one percent at an annual rate in the fourth quarter from the third, down from a 2.4 percent increase in the previous quarter. For 1992 as a whole, service GDP increased 1.3 percent, about the same as the 1.4 percent rate of growth in 1991. *Domestic expenditures on services can be expected to show improvement in 1993.*
- **Personal Consumption on Services** increased a price-adjusted 2.1 percent at an annual rate in the fourth quarter, down from a 3.1 percent rate in the third. For the year as whole, consumers spent 2.1 percent more on services than in 1991. In 1991 the increase was 1.1%. Data through February imply that consumption of services continued to grow in the first quarter of 1993.
- **Private Service Exports** reached a record high \$42.3 billion in the fourth quarter. At \$28.2 billion, fourth-quarter service imports set a record, as well. The surplus on service trade declined to \$14 billion from a record \$16.6 billion in the third quarter.
- **Profits** of service-producing industries increased 12.5 percent in the fourth quarter from a year earlier. The increase follows two quarters of declines. For the year as a whole, profits of service-producing industries increased 2.5 percent.
- **Service Employment** continued to make gains in the first three months of 1993, up a cumulative 418,000 from December. Over the twelve months to March, service employment is up 1.239 million.
- **Consumer Service Price Inflation** was 3.8 percent in the first quarter of 1993, compared to 3.9 percent for all of 1992. The slow but steady decline in service price inflation seen over the last three years appears to be continuing in 1993.
- **Plant and Equipment Expenditures** by service-producing industries increased 8.9 percent in the fourth quarter from the third, at an annual rate, not adjusted for changes in prices. For 1992, expenditures by services industries on plant and equipment were up 8.3 percent, following a 1.6 percent increase in 1991.

Bottom Line: The slower rate of growth for service GDP in the fourth quarter must be viewed along with rising service sector employment, higher profits for service establishments and increased plant and equipment expenditures by service industries. Despite weak economies abroad and cautious consumers and businesses at home, the service economy can be expected to show healthy gains, on balance, in the current year.

The service economy refers to the total economy, in which services activities are the dominant factor. The service economy comprises 68 percent of real production GNP and 77 percent of employment. Major segments are: Communications; Transportation; Public Utilities; Finance, Insurance and Real Estate; Wholesale and Retail Trade; Government; and "Service," a diverse category including Business Services, Personal Services, Professional and Health Services.

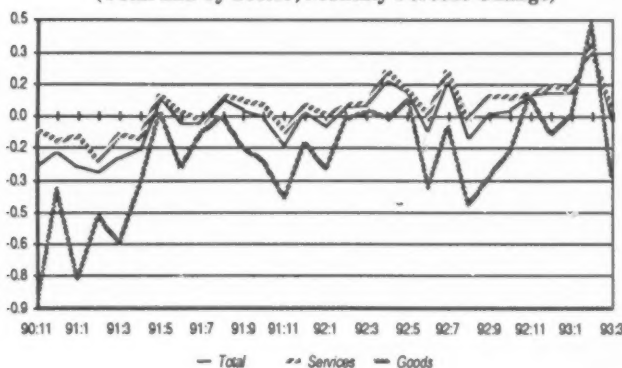
Chart 1
Real Gross Domestic Product
(Total and by Sector, Percent Change at Annual Rates)



Service GDP Growth Slows

Service-GDP—measured on an expenditure basis—increased one percent at an annual rate in the fourth quarter from the third, following a 2.4 percent increase in the previous quarter. The slowdown in service GDP growth was due primarily to a slower rate of growth for personal service consumption, and declines in the services trade balance and government expenditures on services. The goods component of GDP grew at an annual rate of 8.7 percent, up from 4.5 percent in the third quarter. Excluding construction, goods GDP increased 9.3 percent and construction activity was up 6 percent.

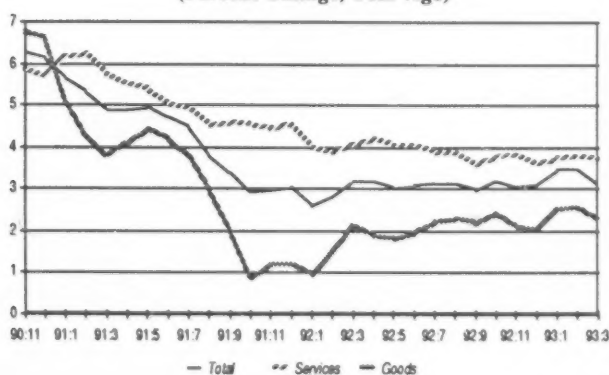
Chart 2
Employment Growth
(Total and by Sector, Monthly Percent Change)



Service Employment Increases

Employment in the service sector continues to increase at a slow pace in 1993. In March, employment was up 418,000 compared to December and 1.239 million higher from March 1992. Most of the gains over the last twelve months occurred mainly in business and health services, retail trade, and government. The largest beneficiaries of higher employment over the last three months were business and health services and wholesale and retail trade. Employment in the goods sector was up 40,000 from December, but off 229,000 from year-earlier levels.

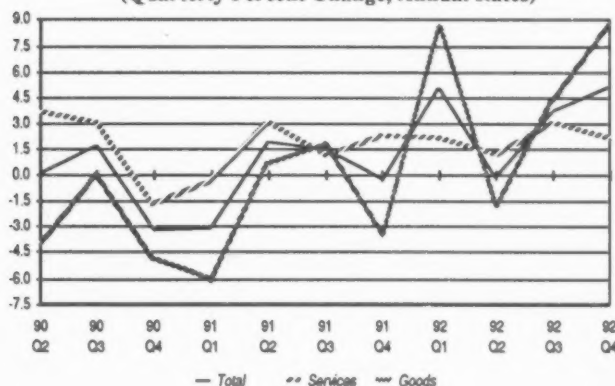
Chart 3
Consumer Price Indices
(Percent Change, Year Ago)



Service Inflation Stabilizes

Prices of consumer services increased 3.7 percent in March from a year earlier. For the first quarter of 1993, service inflation was under 3.8 percent, marginally lower than the 3.9 percent service inflation for all of 1992. Prices for consumer goods increased 2.3 percent in March and 2.4 percent for the first quarter. Goods inflation is up in 1993 so far, compared to the 2 percent rate recorded in 1992.

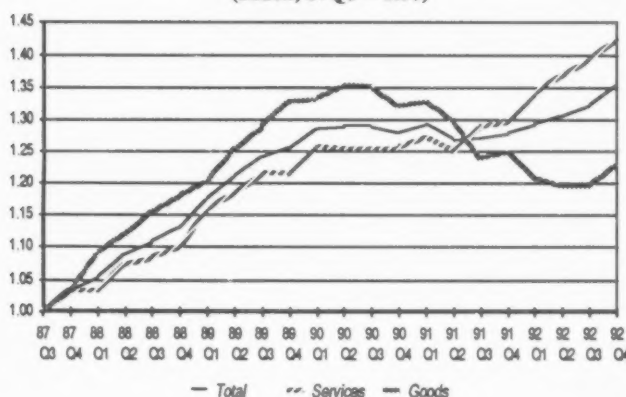
Chart 4
Real Personal Consumption Expenditures
(Quarterly Percent Change, Annual Rates)



Service Consumption Higher

Real personal consumption expenditures on services increased 2.1 percent at an annual rate in the fourth quarter, somewhat slower than the 3.1 percent increase in the third. Higher spending on medical care, financial services, and household operation services led the increase. Personal consumption expenditures on goods were up a large 8.8 percent from the third quarter, mainly as a result of increased purchases of cars and furniture. Data for January and February imply that the rate of growth of service consumption has been maintained.

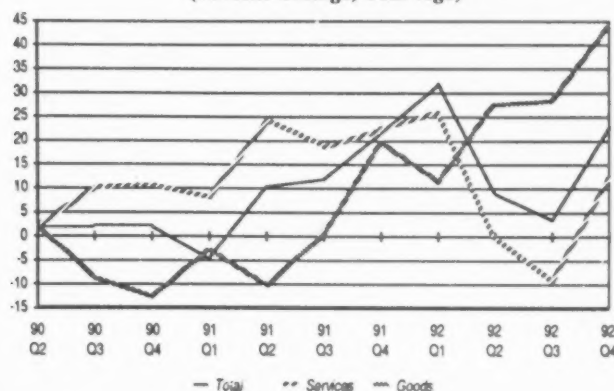
Chart 5
Plant & Equipment Expenditures
(Index, 87Q3 = 1.00)



Higher Plant & Equipment Expenditures

Plant and Equipment (P&E) expenditures by service industries increased at an annual rate of 8.9 percent in the fourth quarter, up from 7.2 in the third. For the year as a whole, spending on P&E by service industries increased 8.3 percent—the largest increase since 1988. P&E spending by goods-producing industries picked up to a 10.9 percent rate in the fourth quarter—the highest increase in three years. For the year as a whole, spending on P&E by goods-producing industries was down 5.5 percent on 1991 following a 4.5 percent decline in the previous year.

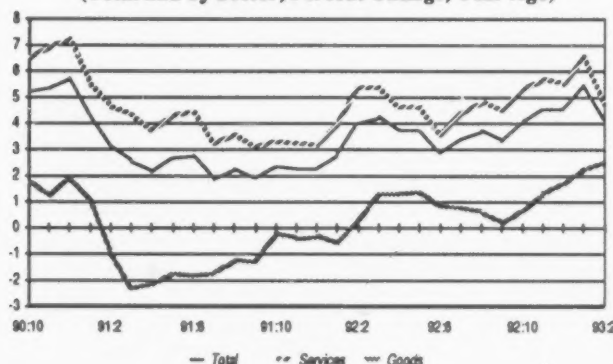
Chart 6
Corporate Profits for Domestic Industries
(Percent Change, Year Ago)



Profits for Service Industries Up

Corporate profits for service-producing industries increased 12.5 percent in the fourth quarter from a year earlier, following two quarters of declines. For the year as a whole, profits for service industries were up 2.5 percent, the smallest increase since 1985 when profits declined 3.5%. Profits for goods-producing industries increased 44.7 percent in the fourth quarter from the fourth quarter of 1991. For all of 1992 profits for goods-producing industries increased 28 percent, following three consecutive years of declines.

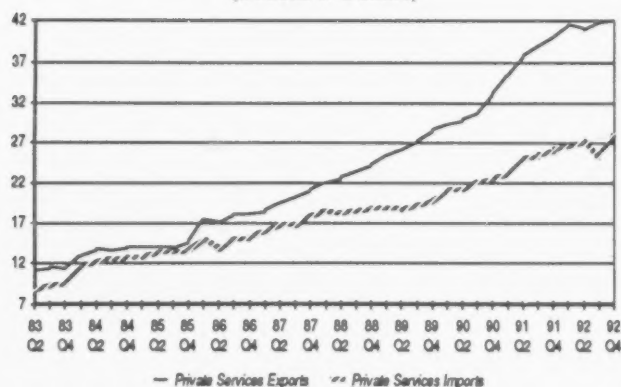
Chart 7
Wages and Salaries
(Total and by Sector, Percent Change, Year Ago)



Service Compensation Up

Total wages and salaries earned by workers in the service sector were, on average, 4.7 percent higher in February from a year earlier. In 1993 so far, service-sector wages and salaries were 5.6 percent higher than in the same period in 1992. In 1992 as a whole, the increase was 4.8 percent. Wages and salaries earned by workers in the goods-producing sector were 2.5 percent higher in the first two months of 1993 from a year earlier, and 0.8 percent higher in 1992 from 1991.

Chart 8
Private Service Trade
(Billions of Dollars)

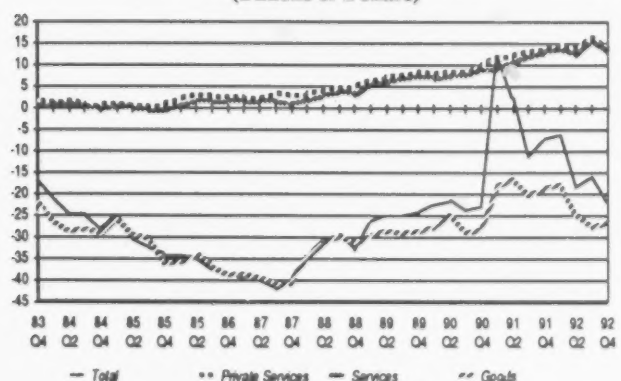


Record High Service Exports

Private service exports increased \$400 million in the fourth quarter to a record high \$42.3 billion, following a \$900 million increase in the third quarter. Service imports increased \$2.8 billion in the fourth quarter, rebounding from a \$2 billion decline in the third quarter. As a result, the service trade surplus was reduced to \$14 billion from a record high \$16.6 billion in the third quarter. For the year as a whole, service trade was in surplus by a record \$59 billion, up from a \$52.2 billion surplus in 1991.

* Private service trade refers to exports and imports in such sectors as travel, tourism, insurance, education, and fees and royalties, and excludes receipts and payments on investments and government transactions.

Chart 9
Current Account Balance and Components
(Billions of Dollars)



Higher Current Account Deficit

The current account deficit increased to \$22 billion in the fourth quarter from \$15.8 billion in the third. Factors contributing to the decline were a smaller surplus for service trade and higher transfer payments. The merchandise trade deficit showed a small improvement, from \$27.6 billion in the third quarter to \$26 billion in the fourth. For 1992 as a whole, the current account deficit was \$62.4 billion, up from \$3.7 billion in 1991.

Table 1
Summary of the Service Economy
(Monthly Indicators)

	1992:10	1992:11	1992:12	1993:1	1993:2	1993:3	1988	1989	1990	1991	1992
Total Employment—											
Millions of Persons	108.6	108.6	108.8	108.9	109.2	109.2	105.5	108.3	109.8	108.3	108.4
Services	85.3	85.4	85.5	85.6	85.9	85.9	80.4	83.0	84.8	84.5	85.0
Goods	23.3	23.3	23.3	23.3	23.4	23.3	25.2	25.3	25.0	23.8	23.4
Total Wages and Salaries—											
Billions of Dollars	2951.3	2967.8	2990.6	3008.3	3004.8	NA	2443.0	2586.4	2742.8	2812.2	2918.7
Services	2202.1	2220.9	2235.0	2257.8	2248.7	NA	1744.0	1862.3	1997.2	2074.8	2174.8
Goods	749.2	746.9	755.6	750.5	756.1	NA	699.0	724.1	745.6	734.4	743.2
Total Wages and Salaries—											
%Change, Year-Over-Year	4.1	4.6	4.5	5.5	4.2	NA	8.0	5.9	6.0	2.5	3.8
Services	5.3	5.7	5.5	6.6	4.7	NA	8.4	6.8	7.2	3.9	4.8
Goods	0.7	1.3	1.7	2.3	2.6	NA	7.2	3.6	3.0	-1.1	0.8
Consumer Price Index—All Urban,											
%Change, Year-Over-Year	3.2	3.0	3.0	3.2	3.3	3.1	4.1	4.8	5.4	4.2	3.1
Services	3.8	3.8	3.8	3.7	3.9	3.7	4.6	4.9	5.5	5.1	3.9
Goods	2.4	2.1	2.0	2.4	2.6	2.3	3.5	4.7	5.2	3.1	2.0

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, and The Boston Company Economic Advisors, Inc.

Table 2
Summary of the Service Economy
(Percent Change, SAAR, Except Where Indicated)

	1991:3	1991:4	1992:1	1992:2	1992:3	1992:4	1988	1989	1990	1991	1992
Gross Domestic Product											
(87 Dollars)	1.2	0.6	2.9	1.5	3.4	4.7	3.9	2.5	0.8	-1.2	2.1
Services	1.0	0.8	1.8	0.4	2.4	1.0	3.6	2.3	2.5	1.4	1.3
Goods and Construction	1.5	0.2	4.2	2.8	4.5	8.7	4.2	2.8	-0.8	-3.8	2.9
Goods	2.3	-0.5	1.7	2.7	6.2	9.3	5.5	3.7	-0.3	-2.3	2.5
Construction	-2.2	3.9	16.2	3.6	-3.1	6.0	-0.4	-0.8	-3.1	-9.9	4.9
GNP—Product Measure											
(82 Dollars)	—	—	—	—	—	—	4.5	2.5	NA	NA	NA
Services	—	—	—	—	—	—	4.3	3.2	NA	NA	NA
Goods	—	—	—	—	—	—	4.7	1.1	NA	NA	NA
Manufacturing	—	—	—	—	—	—	7.7	1.3	NA	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	-1.4	0.6	NA	NA	NA
Consumption Expenditures	1.5	-0.3	5.1	-0.1	3.7	5.1	3.6	1.9	1.2	-0.6	2.3
Services	1.2	2.3	2.2	1.2	3.1	2.1	3.7	1.9	1.9	1.1	2.1
Goods	1.9	-3.4	8.6	-1.7	4.5	8.8	3.5	1.9	0.2	-2.6	2.5
Plant and Equipment Expenditures—											
Current Dollars	1.2	2.5	4.5	3.9	5.0	9.6	11.0	11.4	5.3	-0.7	3.3
Services	13.6	2.1	14.9	8.3	7.2	8.9	8.3	11.3	5.2	1.6	8.3
Goods	-17.2	3.2	-12.5	-4.1	0.8	10.9	15.7	11.6	5.5	-4.5	-5.5
Corporate Profits—Current Dollars											
%Change, Year-Over-Year	0.1	3.8	8.4	8.9	3.4	22.9	15.9	-1.9	3.6	-1.5	10.9
Services	12.0	11.4	7.0	-0.2	-9.5	12.5	4.7	2.7	6.7	8.0	2.5
Goods	-17.0	-9.1	11.3	27.6	28.5	44.7	34.9	-8.0	-1.0	-16.5	28.0

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Bureau of the Census and The Boston Company Economic Advisors, Inc.

Table 3
Summary of the Service Economy
 (Billions of 1987 Dollars, SAAR, Except Where Indicated)

	1991:3	1991:4	1992:1	1992:2	1992:3	1992:4	1988	1989	1990	1991	1992
Gross Domestic Product (87 Dollars)	4831.8	4838.5	4873.7	4892.4	4933.7	4990.8	4718.6	4838.1	4877.5	4821.0	4922.6
Services	2503.7	2509.0	2520.1	2522.4	2537.5	2544.0	2349.7	2403.8	2463.0	2497.6	2531.0
Goods and Construction	2328.1	2329.4	2353.5	2370.0	2396.1	2446.8	2368.9	2434.2	2414.5	2323.4	2391.6
Goods	1918.3	1915.7	1924.0	1936.7	1966.2	2010.6	1892.5	1961.7	1956.8	1911.2	1959.4
Construction	409.8	413.7	429.5	433.3	429.9	436.2	476.3	472.4	457.7	412.2	432.2
GNP—Product Measure (82 Dollars)	—	—	—	—	—	—	4016.9	4117.7	NA	NA	NA
Services	—	—	—	—	—	—	2695.1	2782.0	NA	NA	NA
Goods	—	—	—	—	—	—	1321.8	1335.7	NA	NA	NA
Manufacturing	—	—	—	—	—	—	917.4	929.0	NA	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	404.4	406.7	NA	NA	NA
Consumption Expenditures	3251.2	3249.0	3289.3	3288.5	3318.4	3359.9	3162.4	3223.3	3260.4	3240.8	3314.0
Services	1787.0	1797.4	1807.3	1812.9	1826.6	1836.2	1698.5	1731.0	1764.6	1783.7	1820.8
Goods	1464.2	1451.6	1482.0	1475.6	1491.8	1523.7	1463.9	1492.3	1495.8	1457.1	1493.3
Plant and Equipment Expenditures—											
Current Dollars	526.6	529.9	535.7	540.9	547.5	560.2	454.2	506.0	532.7	528.9	546.1
Services	339.0	340.8	352.9	359.9	366.2	374.2	282.2	313.9	330.2	335.4	363.3
Goods	187.6	189.0	182.9	181.0	181.3	186.1	172.1	192.1	202.5	193.5	182.8
Corporate Profits—											
Current Dollars	270.0	270.2	292.0	300.4	279.3	332.1	271.2	266.0	275.5	271.4	300.9
Services	178.2	182.7	194.5	185.2	161.3	205.5	153.7	157.9	168.5	182.1	186.6
Goods	91.8	87.5	97.5	115.2	118.0	126.6	117.4	108.0	107.0	89.3	114.3
Current Account Balance—											
Quarterly Rates	-11.1	-7.2	-6.4	-18.3	-15.8	-22.0	-126.7	-101.1	-90.4	-3.7	-62.4
Services Balance	12.0	13.1	13.8	12.6	15.7	12.9	12.7	25.8	32.1	45.3	55.1
Private Services Balance **	13.4	14.0	14.8	13.6	16.6	14.0	20.3	33.9	41.1	52.2	59.0
Exports	39.0	40.2	41.6	41.0	41.9	42.3	100.7	118.0	138.1	152.3	166.7
Imports	-25.6	-26.1	-26.7	-27.4	-25.4	-28.2	-80.4	-84.1	-97.0	-100.0	-107.7
Merchandise Trade Balance	-20.2	-18.5	-17.7	-25.0	-27.6	-26.0	-127.0	-115.7	-108.9	-73.4	-96.3

* Private Services Balance is the balance on Service exports and imports excluding receipts and payments on investments and government transactions.

Sources: Bureau of Economic Analysis, Bureau of the Census and The Boston Company Economic Advisors, Inc.

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Trends in Industry Employment, 1990-2005

Charles T. Bowman

The Bureau of Labor Statistics develops alternative projections of the U.S. economy every other year to serve as a statistical base for its *Occupational Outlook Handbook* and related career information publications. The projections focus on industrial and occupational trends over a time horizon of 10 to 15 years under varying economic, demographic and other conditions. The major results on industrial employment trends which emerge from the most recently published projection study¹ are discussed below. Briefly, they can be summarized as follows:

- Employment growth over the 1990 to 2005 period will be sharply lower than in the preceding 15 years due mainly to demographic changes.
- All of the net gain in employment will be in the services-producing sector. Jobs in manufacturing and mining will decline over the period.
- Over 70 percent of net job gains will be in retail trade and in the services division, primarily business and health.
- Health industries will account for 3.7 million or 1 out of every 6 new wage and salary jobs over the period.

Mr. Bowman is Division Chief, Industry Employment Projections at the Bureau of Labor Statistics.

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Total Employment Growth

The American economy is expected to add 25 million net new jobs between 1990 and 2005, compared with an increase of 32 million in the preceding 15-year period, according to the Bureau's moderate growth projections. This translates into an employment gain of 1.2 percent per year between 1990 and 2005 compared with 2.3 percent growth between 1975 and 1990.

As shown below the slackening in employment growth is attributable both to slower growth in the working age population and to smaller increases in labor force participation:

	<i>Annual Rate of Change</i>	
	1975-90	1990-2005
Total employment.....	2.3	1.2
Attributable to:		
Labor force growth.....	1.9	1.3
Population, 16+.....	1.4	1.0
Participation.....	0.5	0.3
Other.....	0.4	-0.1

Because the 1975-90 growth rate is somewhat inflated by cyclical and other temporary factors the secular decline implicit in the projections is closer to the 0.6 percent slowdown in labor force growth than to the overall change in employment.

While employment growth is almost certain to slow over the next 15 years, the exact magnitude of the slowdown remains subject to considerable uncertainty. To try to put some bounds on possible outcomes the Bureau has also developed high and low growth scenarios which bracket the moderate growth case. The high growth alternative incorporates higher labor force participation, particularly among women, as well as a lower unemployment rate. The low growth alternative, on the other hand, features lower participation, lower levels of immigration and a higher unemployment rate. In addition, both alternatives embody changes in numerous other assumptions defining the overall economic environment. The net result is to provide the following range of employment growth alternatives:

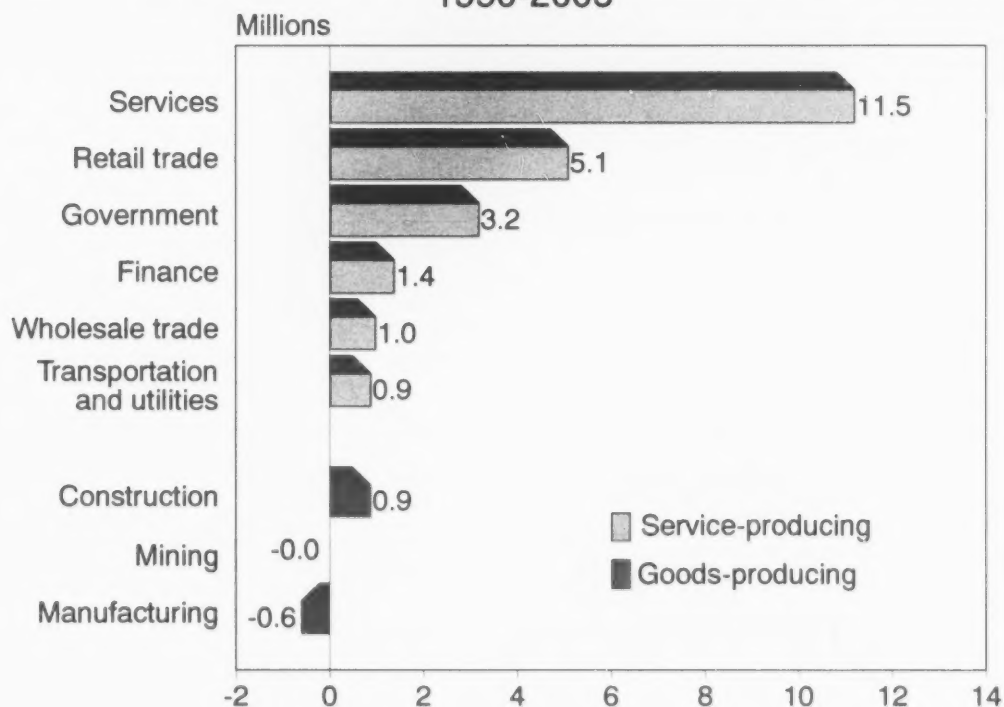
	Total Employment	Growth Rate	Change
	2005	1990-2005	1990-2005
Low growth	136,807	0.7	14,237
Moderate growth	147,190	1.2	24,620
High growth	154,543	1.6	31,973

While the resulting range in the projected level of total employment is fairly wide, basic trends in industrial structure across the three alternatives are quite similar. Hence, the discussion of industrial developments in what follows is for the most part limited to the moderate growth case, which in this regard closely mirrors developments under the other alternatives.

Employment in Major Sectors

Over the next decade, growth in employment will continue to be concentrated among service producing industries. As shown in Table 1, the goods-producing sector will decline to about 19 percent of wage and salary employment by 2005, as compared to 23 percent in 1990 and over 30 percent in 1975. Both manufacturing and mining industries are expected to see declining employment on balance. When combined with a modest increase in construction, the result is nearly unchanged employment in the goods-producing sector overall. By contrast, the service-producing sector is expected to add about 23 million wage and salary jobs between 1990 and 2005. As shown in Chart 1, growth will be concentrated in the services and retail trade divisions which together account for about 72 percent of net new jobs over the period. An additional 14 percent of new jobs are expected to be added in government, primarily at the state and local level.

Chart 1. Job growth in services outpaces other industry divisions, 1990-2005



SOURCE: Bureau of Labor Statistics

Retail trade. Retail trade establishments are projected to add 5 million jobs by 2005, a rate of expansion somewhat faster than overall employment. Over 2 million of these new jobs are projected to be in the eating and drinking places segment. Rising incomes, the prevalence of two-earner families, increases in commuting time and similar social changes are likely to provide impetus for further growth in this sector in spite of its huge expansion over the 1975 to 1990 period. While self-service and other labor-saving innovations may cut labor needs somewhat, the spread of full-service restaurants, especially in lower price categories, is expected to provide a strong counterweight. Responding to some of the same factors which encouraged the growth of restaurants, particularly fast food types, food stores added 1.2 million new jobs over the 1975 to 1990 period as hours of operation were greatly expanded and new products and services were added to increase convenience. The emphasis on convenience should continue to add new jobs in this sector although it is expected to slow considerably from past rates. Among other retail segments, apparel and specialty stores are expected to expand considerably faster than overall retailing, while department stores will expand more slowly.

Business services. The business services sector was by far the fastest growing component of services over the 1975 to 1990 period, with employment expanding at a rate of nearly 8 percent a year, resulting in a net gain of 3.5 million jobs. The rapid rise of temporary employment agencies, responding to employers' efforts to increase flexibility and reduce labor costs, accounted for about one third of the gain. The future outlook for this sector depends on a number of factors such as practical limits on employers' ability to operate with larger proportions of temporary workers, the supply of individuals willing to accept temporary employment and the range of jobs that are suitable for such arrangements. The BLS expects this industry to slow markedly from past rates but nevertheless to add some 500 thousand jobs by 2005, a rate of increase which is considerably above the growth rate of total wage and salary employment. Computer and data processing services, with only 143 thousand jobs in 1975, experienced a more than 5-fold increase in employment over the next 15 years. Rapid gains in computer technology are expected to lead to further dramatic increases in both the capability and complexity of computer systems over the next 15 years, giving rise to continued strong growth in employment as firms seek help in effectively utilizing and managing the new technologies. Many other types of business services such as building maintenance and security services are expected to expand only modestly. An exception is the miscellaneous services sector which continues to grow rapidly as new types of specialized services are created to meet changing business needs. Overall, business services are expected to add about 2.5 million jobs between 1990 and 2005, a sharp slowdown from the 1975-1990 period, but still nearly twice the rate of growth of total wage and salary employment.

Health services. Employment in health services grew from 4.1 to 7.8 million over the 1975 to 1990 period making it one of the economy's fastest growing sectors. The sector is projected to continue to grow rapidly, although at a slackened pace, adding another 3.7 million jobs by 2005. As in the past, growth of the various health care industries will be far from uniform reflecting constant shifts in the institutional settings in which health care services are provided. For example, hospitals, the largest health care sector, is projected to expand at a rate well below the average for the health sector as acute care facilities continue to be closed or consolidated. At the same time hospitals will

be adding jobs by broadening the range of services offered and by providing them in outpatient, home care and other non-traditional ways. Similarly, the home health care industry is expected to be the fastest growing health industry as this type of care makes inroads into more expensive alternatives.

The outlook for continued strong growth in health care employment is related to a number of factors. For many decades to come the median age of the population will be rising and a larger proportion of the population will be in age groups where the demand for medical services begins to rise dramatically. Second, there is no reason to assume that the steady stream of technological advances which have helped to fuel the expansion of medical care will slow. Third, increasing access to medical services for segments of the population not now adequately served by the health care system could provide a new source of demand for basic medical care. Finally, cost containment initiatives taken in recent years have not resulted in any noticeable slowing in employment growth. On the other hand, health care reform proposals now being debated may result in changes in the methods of delivering or financing health care which could lead to slower growth in health care expenditures over the longer term. Until the specifics of such reforms are known, however, it is impossible to say whether employment growth will be significantly affected.

Other sectors. A number of other major groups within the services division are expected to show strong employment growth, adding as many jobs over the 1990-2005 period as they did in the preceding 15 year period, in spite of the overall slowdown in employment growth. Social services are expected to add over 1 million jobs in areas such as residential care, job training, various counseling services and day care. The residential care industry responding to the demands created by an elderly population is projected to add jobs at a rate of 4.5 percent per year, making it the most rapidly growing of any U.S. industry. Educational services (private schools) should also expand rapidly in response to demographic shifts which will swell the size of the school-age population in coming years. State and local government, of course, will be the sector primarily affected by these changes and is expected to add about 1.6 million jobs in education by 2005.

Employment in some service-producing sectors is expected to slow substantially from past rates. Both technological and institutional factors are expected to restrain employment expansion in the finance, insurance and real estate industries. Jobs in communications (except broadcasting) declined in the eighties as a consequence of automation and restructuring and this is expected to continue into the forecast period. The broadcasting segment of communications which had been buoyed by the spread of cable TV is expected to experience much slower growth as cable systems approach a saturation point.

Recent developments. Employment change since 1990, the base year for the current BLS projections, has been dominated by the 1990-91 recession, somewhat obscuring long-term movements. On an annual basis, employment declined by nearly a million jobs between 1990 and 1992 and did not return to its mid-1990 peak until recently. In manufacturing the fall was particularly steep and as yet there has been no sign of a reversal. In addition, employment data for the 1982-1990 period have been revised and the results of the 1990 Census are available. BLS is now in the process of reviewing and revising its projections in light of these and other developments of the past two years,

such as the heightened interest in health care reform, sharp cutbacks in defense spending and the possibility of new international trade agreements. While the new projections, scheduled for release late this year, will undoubtedly result in substantial revisions to the outlook for some industries, the overall outlook for slower employment growth and the major structural trends accompanying it are not likely to change.

¹*Monthly Labor Review*, November 1991, pp. 2-94 (reprinted with additional data in *Outlook 1990-2005*, Bureau of Labor Statistics Bulletin 2402, May 1992). Projections based on data revised and updated through 1992 will be released late this year.

Notes to Tables 1 & 2

¹ Current Employment Statistics figures for 1975 are not available for some sectors within Services. Data for these sectors are estimated by the Office of Employment Projections from alternative sources.

² Excludes agricultural services and nonclassifiable establishments and is therefore not strictly comparable with the corresponding series published in *Employment and Earnings*.

³ Excludes nonprofit research organizations (SIC 8733) and includes services, n.e.c. (SIC 89).

⁴ Includes nonprofit research organizations (SIC 8733).

Table 1. Total employment by industry division, 1975, 1990, and projected to 2005
[thousands of jobs]

Industry	Employment			Annual rate of change		Percent distribution of wage and salary employment		
	1975	1990	2005	1975-1990	1990-2005	1975	1990	2005
Total employment.....	87,641	122,570	147,190	2.3	1.2			
less: Agriculture.....	3,459	3,276	3,080	-0.4	-0.4			
Private household workers.....	1,362	1,014	700	-1.9	-2.4			
Nonagricultural self-employed and unpaid family workers.....	6,165	8,961	10,763	2.5	1.2			
Nonfarm wage and salary ¹	76,680	109,319	132,647	2.4	1.3	100.0	100.0	100.0
Goods-producing.....	22,600	24,958	25,243	0.7	0.1	29.5	22.8	19.0
Mining.....	752	711	669	-0.4	-0.4	1.0	0.7	0.5
Construction.....	3,525	5,136	6,059	2.5	1.1	4.6	4.7	4.6
Manufacturing.....	18,323	19,111	18,515	.3	-0.2	23.9	17.5	14.0
Service-producing.....	54,079	84,363	107,404	3.0	1.6	70.5	77.2	81.0
Transportation, communications, and utilities.....	4,542	5,826	6,689	1.7	0.9	5.9	5.3	5.0
Wholesale trade.....	4,430	6,205	7,210	2.3	1.0	5.8	5.7	5.4
Retail trade.....	12,630	19,683	24,804	3.0	1.6	16.5	18.0	18.7
Finance, insurance, and real estate.....	4,165	6,739	8,128	3.3	1.3	5.4	6.2	6.1
Services.....	13,627	27,588	39,058	4.8	2.3	17.8	25.2	29.4
Government.....	14,685	18,322	21,515	1.5	1.1	19.2	16.8	16.2

Note: Projections data are from U.S. Bureau of Labor Statistics, *Outlook 1990-2005* (May 1992), moderate scenario. Data shown for 1990 is from that publication and does not reflect the most recent revisions to 1990 data.

¹Excludes agricultural services and nonclassifiable establishments and is therefore not strictly comparable with the corresponding series published in *Employment and Earnings*.



Table 2. Wage and salary employment by industry division and major group, 1975, 1990 and projected to 2005
[thousands of jobs]

Industry	Employment (jobs)			Net change	
	1975 ¹	1990	2005	1975-1990	1990-2005
Nonfarm wage and salary ²	76,680	109,319	132,647	32,639	23,328
Goods-producing.....	22,600	24,958	25,243	2,358	284
Mining.....	752	711	669	-41	-43
Construction.....	3,525	5,136	6,059	1,611	923
Manufacturing.....	18,323	19,111	18,515	788	-597
Service-producing.....	54,079	84,363	107,404	30,283	23,042
Transportation, communications, and utilities.....	4,542	5,826	6,689	1,284	863
Wholesale trade.....	4,430	6,205	7,210	1,775	1,005
Retail trade except eating and drinking places.....	9,250	13,118	16,092	3,868	2,974
Eating and drinking places.....	3,380	6,565	8,712	3,185	2,147
Finance, insurance, and real estate....	4,165	6,739	8,128	2,574	1,389
Services.....	13,627	27,588	39,058	13,961	11,470
Hotels.....	898	1,649	2,174	751	525
Personal services.....	782	1,113	1,338	331	225
Repair services.....	657	1,318	1,726	661	408
Motion pictures, amusements and recreation services.....	819	1,497	1,904	678	407
Business services.....	1,697	5,241	7,623	3,544	2382
Engineering and management services ³	1,035	2,396	3,660	1,361	1,264
Legal services.....	341	919	1,427	578	508
Social services.....	690	1,811	2,873	1,121	1,062
Health services.....	4,134	7,844	11,519	3,710	3,675
Educational services.....	1,001	1,652	2,326	651	674
Museums and membership organizations ⁴	1,573	2,149	2,488	576	339
Government.....	14,685	18,322	21,515	3,637	3,193
Federal.....	2,748	3,085	3,184	337	99
State and local	11,937	15,237	18,331	3,300	3,094
Hospitals.....	992	1,084	1,298	92	214
Education.....	6,157	7,788	9,430	1,631	1,642
Other.....	4,788	6,366	7,603	1,578	1,237

Note: Projections data are from U.S. Bureau of Labor Statistics, *Outlook 1990-2005* (May 1992), moderate scenario. Data shown for 1990 is from that publication and does not reflect the most recent revisions to 1990 data.

SERVICES ECONOMIC HIGHLIGHTS

CSI

Allen Sinai

Chief Economist, Boston Company Economic Advisors, Inc.

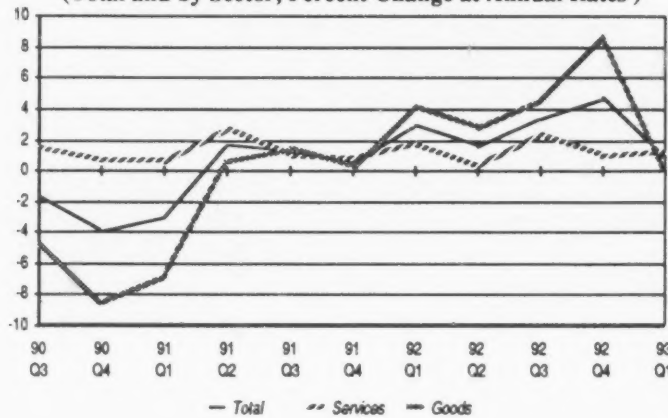
The Service Economy At a Glance—Looking Better !

- **Service Gross Domestic Product (GDP) Measured by Expenditures** increased 1.4 percent at an annual rate in the first quarter of 1993 over the previous quarter. The acceleration in growth from a one percent increase in the fourth quarter was due to higher consumer expenditures on services and higher service exports. *These two areas can be expected to show further gains in 1993.*
- **Personal Consumption on Services** increased a price-adjusted 3.2 percent at an annual rate in the first quarter of the year, following a 2.1 percent increase in the fourth quarter of 1992. Data through May imply that consumption of services continued to grow in the second quarter, but at a slower pace.
- **Private Service Exports** reached a new high \$43.2 billion in the first quarter of 1993. At \$27.8 billion, first-quarter service imports also set a record. The surplus on service trade increased to \$15.4 billion from \$14.7 billion in the previous quarter.
- **Profits** of service-producing industries increased 5.8 percent in the first quarter of 1993 from a year earlier, following a 12 percent increase in the fourth quarter. Large profit gains achieved in wholesale and retail trade and other nonfinancial service industries were mostly offset by losses in the financial and transportation industries.
- **Service Employment** continued to make gains in the first half of 1993, up a cumulative 1.026 million from December. Over the twelve months to June, service employment is up 1.560 million.
- **Consumer Service Price Inflation** showed a small acceleration to a 4 percent rate in May, from rates just under 4 percent in previous months. It is unlikely that service inflation will continue to accelerate at a fast pace through the rest of the year.
- **Plant and Equipment Expenditures** by service-producing industries increased 7.3 percent in the first quarter of 1993 from the previous quarter, at an annual rate, not adjusted for changes in prices. Industries spending more on investment include those in the financial, transportation, trade and communications areas.

Bottom Line: The uneven pace of economic recovery in the service sector will likely continue through 1993. As the overall U.S. economy moves out of the recession, both consumers and businesses should increase expenditures on services, which will solidify the recovery. In addition, a faster pace of economic growth abroad should translate to higher U.S. service exports.

The service economy refers to the total economy, in which services activities are the dominant factor. The service economy comprises 73 percent of real production GNP and 79 percent of employment. Major segments are: Communications; Transportation; Public Utilities; Finance, Insurance and Real Estate; Wholesale and Retail Trade; Government; and "Services," a diverse category including Business Services, Personal Services, Professional and Health Services.

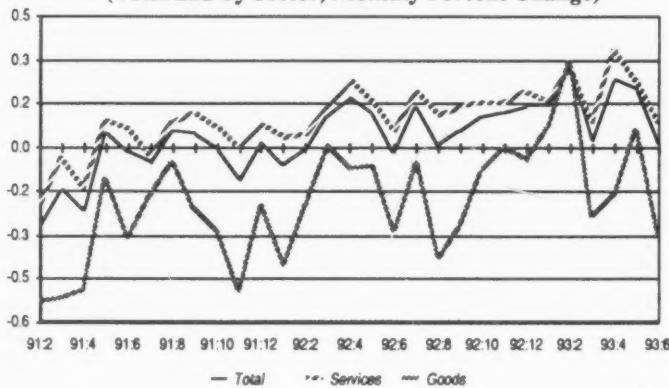
Chart 1
Real Gross Domestic Product
(Total and by Sector, Percent Change at Annual Rates)



Service GDP Growth Picks Up

Service-GDP—measured on the expenditure basis—increased 1.4 percent at an annual rate in the first quarter from the fourth, following a one percent increase in the previous quarter. The pick-up in service GDP growth was the result of a stronger rate of growth on personal service consumption expenditures and a larger services trade surplus. The goods component of GDP remained essentially unchanged from the fourth quarter, following a large 8.7 percent increase in the last quarter of 1992. Excluding construction, goods GDP increased 0.3 percent while construction activity declined 1.2 percent.

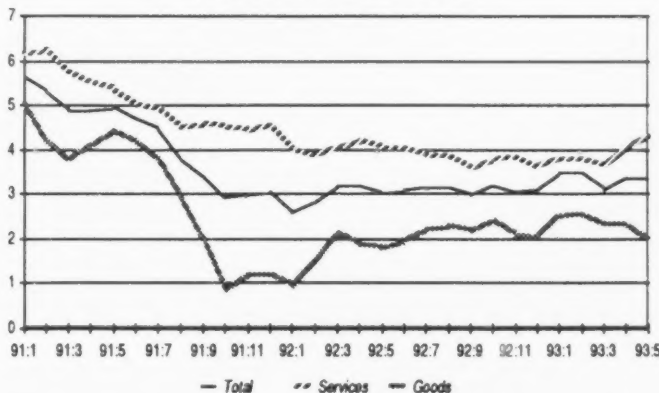
Chart 2
Employment Growth
(Total and by Sector, Monthly Percent Change)



Service Employment Increases

Employment in the service sector continued to make gains. In June, employment was up 1.560 million compared to March, and 1.834 million higher from June 1992. Most of the employment gains are concentrated in business and health services and wholesale and retail trade. Employment in the goods sector was up 762,000 from March, but off 238,000 from year-earlier levels.

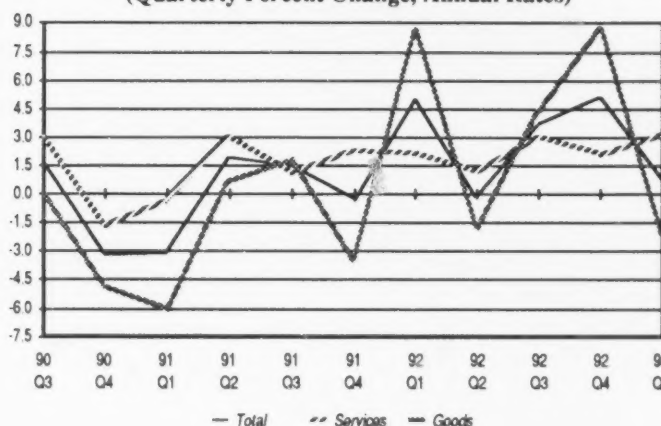
Chart 3
Consumer Price Indices
(Percent Change, Year Ago)



Service Inflation Accelerates

Prices of consumer services increased 4 percent in May from a year earlier, following increases of 3.8 percent and 3.7 percent in the previous two months—implying an acceleration in service inflation. Prices for consumer goods increased 2.3 percent in May, down from a 2.5% increase in April. Overall consumer inflation was 3.2% in both May and April.

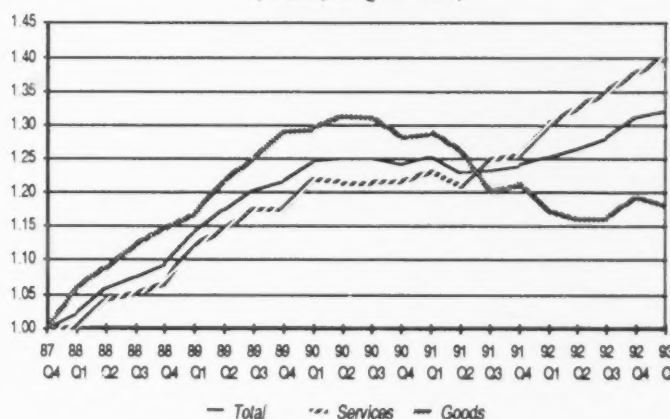
Chart 4
Real Personal Consumption Expenditures
(Quarterly Percent Change, Annual Rates)



Service Consumption Higher

Real personal consumption expenditures on services increased 3.2 percent at an annual rate in the first quarter from the fourth, up from a 2.1 percent increase in the previous quarter. Higher spending on medical care and household operation services led the increase. Personal consumption expenditures on goods declined 2.1 percent following a large 8.8 percent increase in the fourth quarter of 1992. Data for April and May imply a slowdown in the rate of growth of service expenditures.

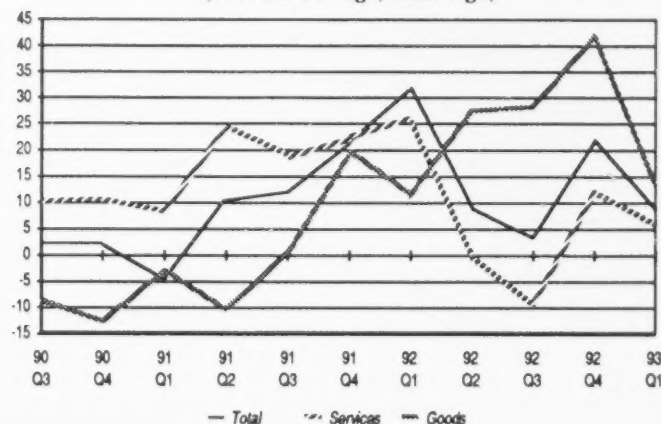
Chart 5
Plant & Equipment Expenditures
(Index, 87Q4 = 1.00)



Higher Plant & Equipment Expenditures

Plant and Equipment (P&E) expenditures by service industries increased at an annual rate of 7.3 percent in the first quarter from the fourth, following an 8.9 percent increase in the fourth quarter. The financial, transportation, trade and communication industries increased investment spending, while the personal and business and public utilities industries cut back. P&E spending by goods-producing industries declined 4.3 percent after a three-year high 10.9 percent increase in the fourth quarter.

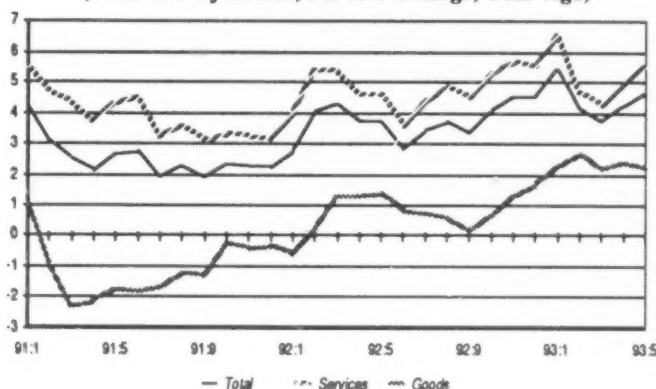
Chart 6
Corporate Profits for Domestic Industries
(Percent Change, Year Ago)



Profits for Service Industries Up

Corporate profits for service-producing industries increased 5.8 percent in the first quarter of the year from a year earlier, following a 12 percent increase in the previous quarter. The modest gains in profits for the service sector was the combined result of losses for the financial and transportation industries and double-digit profit gains for wholesale and retail trade and other nonfinancial industries. Profits for goods-producing industries were up 13.5 percent after a 42.3 percent increase in the fourth quarter of 1992.

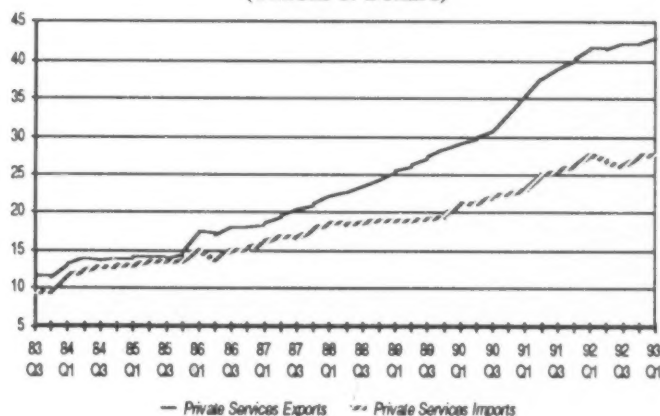
Chart 7
Wages and Salaries
(Total and by Sector, Percent Change, Year Ago)



Service Compensation Up

Total wages and salaries earned by workers in the service sector were, on average, 5.5 percent higher in May from a year earlier. In 1993 so far, service-sector wages and salaries were 5.2 percent higher than in the same period in 1992. Wages and salaries earned by workers in the goods-producing sector increased at a slower 2.3 percent rate in May and were 2.4 percent higher in the first five months of the year compared to the first five months of 1992.

Chart 8
Private Service Trade
(Billions of Dollars)

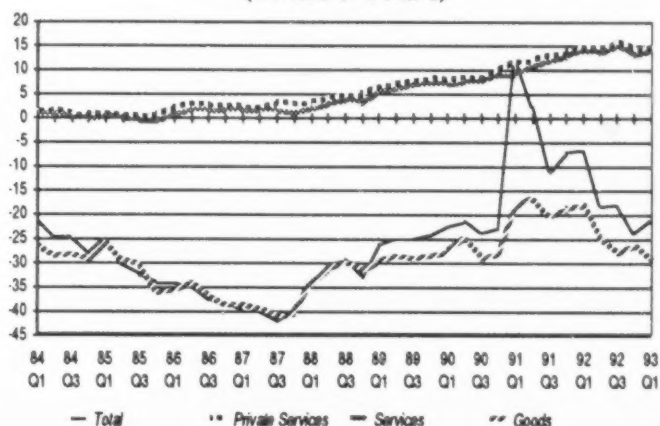


Record High Service Exports

Private service exports increased \$904 million in the first quarter of 1993 from the fourth to a new record high of \$43.2 billion. The increase in service imports was a smaller \$145 million, leaving a surplus of \$15.4 billion for the quarter, up from \$14.7 billion in the last quarter of 1992. For 1992 as a whole, services trade was in surplus by a record \$60.6 billion, up from a \$52.2 billion surplus in 1991.

* Private service trade refers to exports and imports in such sectors as travel, tourism, insurance, education, and fees and royalties, and excludes receipts and payments on investments and government transactions.

Chart 9
Current Account Balance and Components
(Billions of Dollars)



Lower Current Account Deficit

The current account deficit narrowed to \$20.9 billion in the first quarter of 1993 from \$23.7 billion in the fourth quarter of 1992. Factors contributing to the improvement were a larger surplus for services trade and lower transfer payments. The merchandise trade gap widened to \$29.1 billion from \$26 billion in the fourth quarter. For 1992 as a whole, the current account deficit was \$66.4 billion, up from \$3.7 billion in 1991.

U.S. TRADE DATA - AN UPDATE

by Allen Sinai and Zaharo Sofianou

There is a widely held misconception, both in the press and among users of economic statistics, that the merchandise trade deficit is the U.S. trade balance. It is time that U.S. international trade in services, the "Cinderella" of economic data, come out into the spotlight. Service exports are defined as transactions between U.S. and foreign nationals involving the sale of a service such as telecommunications, professional and business services, travel, insurance and other financial services. Moreover, the largest category of service exports is revenue from tourists traveling in the United States. For the purposes of international trade, expenditures by foreign nationals in the U.S. are considered to be an export of services, as are expenditures by foreign students studying and paying school fees in this country. The United States is not only the world's largest exporter of services, but also has the largest services trade surplus. As a result, the growing surplus in services helps to reduce the overall trade deficit. When the services surplus of \$60.6 billion is added to the 1992 merchandise deficit often seen in the press, the overall trade deficit is reduced to \$35.6 billion, or only 0.5 percent of GDP.

Service exports have grown at double-digit rates in all years since 1987, with the exception of 1992, when growth was 9.7 percent (Table 1). Even a 9.7 percent rate of growth can be regarded as impressive considering the recessionary world economic environment. Growth for merchandise exports in 1992 was 5.6 percent. Another impressive fact about services trade is that the U.S. recorded a trade surplus with all major countries or regions in both 1991 and 1992 (Table 2).

Table 1
Goods and Services Trade Balance

	1987	1988	1989	1990	1991	1992
Total Goods and Services Trade Balance	-146.7	-107.4	-82.4	-69.3	-20.7	-35.6
Services Balance	12.8	19.6	32.9	39.7	53.1	60.6
Goods Balance	-159.5	-127.0	-115.3	-109.0	-73.8	-96.2
Exports						
Goods and Services	336.5	420.3	479.8	527.2	569.9	607.9
Percent Change	12.0	24.9	14.1	9.9	8.1	6.7
Services	86.2	100.0	117.7	137.9	153.0	167.8
Percent Change	11.9	16.0	17.7	17.2	10.9	9.7
Goods	250.3	320.3	362.1	389.3	416.9	440.1
Percent Change	12.0	28.0	13.0	7.5	7.1	5.6
Imports						
Goods and Services	483.2	527.7	562.2	596.5	590.6	643.5
Percent Change	11.6	9.2	6.5	6.1	-1.0	9.0
Services	73.4	80.4	84.8	98.2	99.9	107.2
Percent Change	13.9	9.5	5.5	15.8	1.7	7.3
Goods	409.8	447.3	477.4	498.3	490.7	536.3
Percent Change	11.2	9.2	6.7	4.4	-1.5	9.3

Sources: Bureau of Economic Analysis and Economic Advisors, Inc.

Allen Sinai is Chief Economist and Zaharo Sofianou, Senior Economist, of Economic Advisors, Inc., an Affiliate of Lehman Brothers and Lehman Brothers Global Asset Management

In 1992, the United States exported a record \$167.8 billion worth of services, which is about double the \$86.2 billion exported in 1987. At \$60.6 billion, the surplus in this area was also a record high last year. A slower rate of increase for service imports compared to exports has contributed to the dizzying speed with which the surplus has grown over the past few years. In 1987, the surplus in services was a mere \$12.7 billion, making the 1992 surplus five times as large in as many years. This most positive of economic statistics, however, is often overlooked. In 1992, the U.S. recorded a deficit in goods trade of \$96.2 billion, up from a \$73.8 billion deficit in 1991—or a deterioration of \$22.4 billion. The overall, or *complete* trade balance, however, was in deficit by \$35.6 billion in 1992, up from \$20.7 billion in 1991—a \$14.9 billion deterioration. Compared to the \$146.7 billion trade deficit in 1987, the 1992 deficit was about one-fourth the size.

Similarly, the U.S. bilateral trade balances with its major trading partners is vastly different from the one portrayed by the merchandise trade figures alone. Tables 2, 3 and 4, show trade in services, goods, and goods and services between the United States and its major trading partners. In broad terms, sales of services are generally higher to more industrialized regions than they are to developing economies. As a result, 37.4 percent of U.S. service exports go to Europe, with 10 percent of the total going to the United Kingdom alone. Another 15.6 percent of U.S. service exports go to Latin American countries, with Mexico accounting for about one third. Canada absorbs another 10.5 percent of the total. Japan is the largest single country importer of U.S. services, importing 15.3 percent in 1992. The large U.S. merchandise trade deficit with Japan, the subject of much political friction, was reduced to \$35.2 billion in 1992 when the total goods and services balance is considered—rather than the \$48.7 billion frequently mentioned.

Moreover, the overall bilateral trade balances between the United States and its major trading partners has a completely different look compared to the goods balances alone. Data for 1992 show that the United States was in surplus against Europe by \$26.7 billion, compared to about the same deficit amount in 1986. The U.S. total goods and services trade balance with Latin America has turned to a \$10.4 billion surplus in 1992 from a \$15.2 billion deficit in 1987. Perhaps the one region that stands out is the catchall "Other Countries in Asia and Africa" area. Here the United States has a large \$54 billion deficit in goods trade, and a total goods and services deficit of \$43.8 billion—about \$10 billion more than the U.S. total trade deficit with Japan. Most of the deficit in this category comes from countries in Southeast Asia, such as China, Taiwan, Korea, Singapore and Hong Kong. The main reason for the large U.S. deficit in goods trade is that most of these countries produce and export competitively priced labor-intensive products such as toys or electrical and electronic products—often manufactured by U.S. multinational companies. And while their imports of services from the United States have increased at a double-digit pace since 1988, reaching \$27.4 billion in 1992, U.S. imports of services from these regions have also increased, although at a slower pace. As a result, the \$10.2 billion surplus in services is not large enough to significantly reduce the overall trade imbalance. As the economies of countries in the Other Asia and Africa category develop further, one can expect imports of services to increase.

Conclusions

In the area of international trade, services are often left out of the trade equation, as many users of trade statistics mistakenly refer to the merchandise trade balance as the U.S. trade balance. The overall, or complete trade balance for a country includes both goods and services exports and imports. The services trade balance is particularly important for the United States which is the world's largest exporter of services and has the world's largest surplus in services trade. In 1992, services trade was in surplus by \$60.6 billion, up from \$12.8 billion in 1987. The U.S. trade balance in goods trade was in deficit by \$96.2 billion, down from \$159.5 billion in 1987. As a result, the complete U.S. trade deficit in 1992 was \$35.6 billion—a vast improvement from the goods and services trade deficit of \$146.7 billion recorded in 1987. While not all the improvement in the deficit came from the higher services trade surplus, it has nevertheless made a substantial contribution. What is perhaps more important is that service exports promise to be a high growth area, where the United States can effectively compete with other countries.

THE COALITION OF SERVICE INDUSTRIES was formed in 1982 to increase public awareness of the expanding role of the service sector in the U.S. economy. One of the priorities of the Coalition is to improve the adequacy of statistical programs in their measurement and analysis of the service sector.

THE SERVICE ECONOMY is a product of the CSI Task Force on Data Collection and Statistical Improvement. Comments or suggestions should be directed to Maria Eli of CSI at 202/775-1723.

Table 2
Total Private Services Trade
(Billions of Dollars)

	Exports							Imports						
	1986	1987	1988	1989	1990	1991	1992	1986	1987	1988	1989	1990	1991	1992
All Countries	77.0	86.2	100.0	117.7	137.9	153.0	167.8	64.5	73.4	80.4	84.8	98.2	99.9	107.2
Canada	7.7	8.8	9.5	13.2	15.8	17.5	17.6	4.6	5.1	6.5	7.1	7.5	8.0	8.2
Japan	9.8	11.7	14.1	18.4	21.5	24.3	25.6	5.6	6.3	7.1	8.9	10.6	11.8	12.3
Europe	22.6	27.0	32.1	38.1	44.0	54.8	62.7	21.8	25.2	27.4	32.6	40.1	39.7	42.8
Western Europe	22.3	26.7	31.7	41.1	48.3	53.6	61.5	21.5	24.4	26.8	32.0	39.3	38.7	41.7
European Communities														
(12)	18.6	22.5	26.2	37.5	40.1	45.2	52.4	18.3	20.8	22.7	27.7	33.7	33.2	36.5
Belgium-Luxembourg	0.9	0.9	1.1	1.3	1.8	2.0	2.4	0.5	0.5	0.9	0.7	1.0	1.0	1.0
France	2.4	3.0	3.3	4.6	5.6	6.3	7.1	1.7	2.0	2.5	2.9	4.2	4.0	4.6
Germany, FDR	3.6	4.5	5.1	5.4	7.6	9.1	10.9	3.6	4.5	4.9	4.8	6.9	6.5	6.9
Italy	1.8	2.1	2.4	2.6	3.4	3.8	4.5	2.1	2.4	2.7	2.6	3.5	3.3	3.6
Netherlands	1.7	1.9	2.2	2.7	3.3	3.6	3.8	1.0	1.2	1.2	1.3	2.0	2.2	2.4
United Kingdom	5.7	7.3	8.6	12.4	13.2	14.5	16.8	6.8	8.0	6.9	9.6	11.7	12.3	13.3
Other	2.5	2.8	3.5	8.6	5.1	6.0	7.0	2.5	2.3	3.6	5.7	4.4	4.0	4.6
Other Western Europe	3.7	4.2	5.5	3.6	8.2	8.4	9.1	3.2	3.6	4.1	4.3	5.7	5.4	5.2
Eastern Europe	0.3	0.4	0.4	0.6	1.0	1.2	1.2	0.3	0.5	0.5	0.6	0.8	1.1	1.2
Latin America & Other														
Western Hemisphere	13.0	13.2	14.8	17.4	21.3	24.1	26.2	14.2	16.0	17.0	17.5	19.7	20.4	22.0
Mexico	3.4	6.1	4.1	6.0	7.4	8.3	8.9	4.3	5.0	5.7	6.6	7.4	7.8	8.0
Venezuela	1.5	0.8	0.9	1.0	1.0	1.2	1.4	0.5	0.5	0.6	0.5	0.7	0.6	0.6
Other	8.0	6.2	9.8	10.5	12.9	14.6	15.9	9.4	10.5	10.7	10.4	11.6	12.0	13.4
Other Countries in														
Asia & Africa	12.9	13.4	15.9	18.1	21.3	24.6	27.4	10.6	12.6	13.0	13.6	15.3	15.4	17.2
Australia	1.6	1.8	2.2	2.8	3.4	3.3	3.4	1.2	1.5	1.6	1.7	2.3	2.4	2.3

	Balance						
	1986	1987	1988	1989	1990	1991	1992
All Countries	12.5	12.8	19.6	32.9	39.7	53.1	60.6
Canada	3.1	3.6	3.1	6.1	8.3	9.5	9.3
Japan	4.1	5.4	7.0	9.4	10.9	12.6	13.3
Western Europe	0.8	2.3	4.9	9.1	9.0	15.0	19.8
European Communities							
(12)	0.3	1.6	3.6	9.8	6.4	12.0	16.0
Belgium-Luxembourg	0.4	0.4	0.2	0.7	0.8	1.0	1.3
France	0.7	1.0	0.8	1.7	1.4	2.3	2.5
Germany, FDR	0.0	0.0	0.3	0.6	0.7	2.5	4.0
Italy	-0.3	-0.3	-0.3	-0.1	-0.1	0.5	0.8
Netherlands	0.8	0.7	1.1	1.3	1.3	1.4	1.4
United Kingdom	-1.2	-0.7	1.7	2.8	1.5	2.2	3.5
Other	0.0	0.5	-0.1	2.8	0.7	2.0	2.5
Other Western Europe	0.5	0.7	1.4	-0.7	2.6	3.0	3.9
Eastern Europe	0.0	0.0	-0.1	0.0	0.2	0.1	0.1
Latin America & Other							
Western Hemisphere	-1.2	-2.9	-2.2	-0.1	1.6	3.7	4.2
Mexico	-0.9	-0.9	1.2	-0.6	0.0	0.5	0.9
Venezuela	1.0	1.0	0.3	0.5	0.3	0.6	0.8
Other	-1.4	-1.3	-4.3	0.0	1.3	2.5	2.5
Other Countries in							
Asia & Africa	2.3	0.8	2.9	4.5	6.1	9.2	10.2
Australia	0.4	0.3	0.6	1.0	1.1	0.9	1.2

Sources: Economic Advisors, Inc. and Bureau of Economic Analysis.

Table 3
Total Merchandise Trade
(Billions of Dollars)

	Exports							Imports						
	1986	1987	1988	1989	1990	1991	1992	1986	1987	1988	1989	1990	1991	1992
All Countries	223.4	250.3	320.3	362.1	389.3	416.9	440.1	368.4	409.8	447.3	477.4	498.3	490.7	536.3
Canada	56.5	62.0	74.3	80.7	83.5	85.9	91.1	69.7	73.6	84.7	89.9	93.1	93.0	100.9
Japan	26.4	27.6	37.2	43.9	47.8	47.2	48.9	80.8	84.6	89.8	93.5	90.4	92.3	97.4
Europe	62.4	70.9	90.2	103.9	115.7	121.7	120.1	90.9	98.0	104.8	104.5	111.4	103.7	113.3
Western Europe	60.4	68.6	86.4	98.4	111.4	116.8	114.5	89.0	96.1	102.6	102.4	109.2	101.9	111.3
European Communities														
(12)	51.8	59.5	74.5	84.5	96.3	101.3	100.6	74.2	81.5	86.0	85.5	91.4	85.7	93.9
Belgium-Luxembourg	5.5	6.1	7.4	8.4	10.4	10.7	10.0	3.9	4.2	4.5	4.5	4.6	4.1	4.7
France	7.1	7.9	9.9	11.6	13.7	15.3	14.6	9.5	10.5	12.5	12.9	13.0	13.2	14.6
Germany, FDR	10.5	11.5	14.3	16.4	18.3	20.8	20.3	24.5	26.9	26.3	24.7	28.0	26.0	28.7
Italy	4.8	5.5	6.7	7.1	7.9	8.4	8.6	10.3	10.9	11.5	11.9	12.7	11.7	12.2
Netherlands	7.2	8.0	9.7	11.3	12.8	13.3	13.4	4.1	4.8	6.0	4.9	4.9	4.9	5.7
United Kingdom	11.2	13.8	18.1	20.3	22.9	21.5	22.4	15.1	17.2	17.7	18.0	20.0	18.3	19.9
Other	5.7	6.7	8.5	9.4	10.4	11.3	11.3	6.7	6.8	7.6	8.6	8.2	7.6	8.0
Other Western Europe	8.5	9.1	11.9	13.9	15.1	15.5	13.8	14.8	14.7	16.6	16.9	17.9	16.1	17.4
Eastern Europe	2.1	2.3	3.8	5.5	4.3	4.8	5.6	2.0	1.9	2.2	2.1	2.3	1.8	2.0
Latin America & Other														
Western Hemisphere	30.8	35.0	43.7	48.8	54.3	63.3	75.4	42.0	47.3	51.4	57.5	64.4	63.0	69.2
Mexico	12.3	14.6	20.6	24.7	28.1	33.1	40.5	17.7	20.3	23.3	27.1	30.5	31.5	35.6
Venezuela	3.1	3.5	4.5	3.0	3.1	4.6	5.3	4.8	5.7	5.2	6.8	9.5	8.2	8.2
Other	15.4	16.9	18.5	21.2	23.1	25.5	29.6	19.5	21.4	23.0	23.6	24.4	23.3	25.4
Other Countries in														
Asia & Africa	42.2	49.5	68.1	75.9	79.2	90.3	97.9	82.4	103.3	113.0	128.1	134.7	134.7	151.9
Australia	5.1	5.3	6.8	8.1	8.3	8.3	8.7	2.6	3.0	3.5	3.9	4.4	4.1	3.7
	Balance													
	1986	1987	1988	1989	1990	1991	1992							
All Countries	-145.1	-159.5	-127.0	-115.3	-109.0	-73.8	-96.2							
Canada	-13.2	-11.6	-10.4	-9.3	-9.6	-7.1	-9.7							
Japan	-54.4	-57.0	-52.6	-49.7	-42.6	-45.0	-48.5							
Europe	-28.5	-27.2	-14.5	-0.5	4.3	18.0	6.8							
Western Europe	-28.6	-27.5	-16.2	-4.0	2.2	14.9	3.2							
European Communities														
(12)	-22.3	-21.9	-11.6	-1.0	4.9	15.6	6.7							
Belgium-Luxembourg	1.5	1.9	2.9	3.9	5.8	6.6	5.3							
France	-2.4	-2.6	-2.6	-1.3	0.6	2.2	0.0							
Germany, FDR	-14.1	-15.4	-12.1	-8.3	-9.7	-5.3	-8.4							
Italy	-5.6	-5.5	-4.8	-4.8	-4.8	-3.2	-3.6							
Netherlands	3.1	3.2	3.8	6.3	7.8	8.4	7.7							
United Kingdom	-3.9	-3.5	0.4	2.4	3.0	3.3	2.5							
Other	-0.9	-0.2	0.9	0.8	2.2	3.7	3.3							
Other Western Europe	-6.3	-5.6	-4.6	-3.0	-2.8	-0.6	-3.6							
Eastern Europe	0.1	0.3	1.7	3.5	2.1	3.0	3.7							
Latin America & Other														
Western Hemisphere	-11.3	-12.3	-7.8	-8.7	-10.1	0.3	6.2							
Mexico	-5.4	-5.7	-2.7	-2.5	-2.4	1.6	4.9							
Venezuela	-1.7	-2.1	-0.6	-3.8	-6.4	-3.6	-2.9							
Other	-4.2	-4.5	-4.4	-2.4	-1.2	2.2	4.2							
Other Countries in														
Asia & Africa	-40.2	-53.8	-45.0	-52.2	-55.5	-44.5	-54.0							
Australia	2.5	2.3	3.3	4.2	3.9	4.2	5.0							

Sources: Economic Advisors, Inc. and Bureau of Economic Analysis.

Table 4
Total Merchandise and Private Services Trade
(Billions of Dollars)

	Exports								Imports							
	1986	1987	1988	1989	1990	1991	1992	1986	1987	1988	1989	1990	1991	1992		
All Countries	300.4	336.5	420.3	479.8	527.2	569.9	607.9	432.9	483.2	527.7	562.2	596.5	590.6	643.5		
Canada	64.2	70.8	83.8	93.9	99.3	103.4	108.7	74.3	78.7	91.2	97.1	100.6	101.0	109.1		
Japan	36.1	39.3	51.2	62.2	69.3	71.5	74.5	86.4	90.9	96.9	102.5	100.9	104.0	109.7		
Europe	85.1	97.9	122.3	142.0	159.7	176.5	182.8	112.8	123.2	132.2	137.0	151.6	143.4	156.1		
Western Europe	82.6	95.3	118.1	139.5	159.7	170.5	175.9	110.4	120.5	129.4	134.4	148.5	140.6	153.0		
European Communities (12)	70.5	82.0	100.7	122.0	136.3	146.5	153.0	92.4	102.3	108.7	113.2	125.0	118.9	130.4		
Belgium-Luxembourg	6.4	7.1	8.5	9.8	12.2	12.7	12.3	4.5	4.7	5.4	5.2	5.6	5.1	5.7		
France	9.5	10.9	13.2	16.2	19.3	21.6	21.7	11.3	12.5	15.0	15.8	17.2	17.1	19.2		
Germany, FDR	14.0	16.1	19.4	21.8	25.9	29.8	31.2	28.1	31.5	31.2	29.5	34.9	32.5	35.6		
Italy	6.6	7.6	9.0	9.7	11.2	12.2	13.1	12.5	13.3	14.2	14.5	16.1	14.9	15.9		
Netherlands	8.9	10.0	11.9	13.9	16.1	16.9	17.2	5.1	6.0	7.1	6.3	6.9	7.1	8.1		
United Kingdom	16.8	21.0	26.6	32.7	36.2	36.0	39.2	21.9	25.2	24.6	27.5	31.7	30.5	33.2		
Other	8.2	9.4	12.0	18.0	15.5	17.3	18.3	9.2	9.1	11.2	14.3	12.6	11.6	12.5		
Other Western Europe	12.2	13.3	17.4	17.5	23.3	23.9	22.9	18.0	18.2	20.7	21.2	23.6	21.6	22.6		
Eastern Europe	2.4	2.6	4.3	6.2	5.3	6.0	6.9	2.3	2.4	2.7	2.7	3.1	2.9	3.2		
Latin America & Other																
Western Hemisphere	43.7	48.1	58.4	66.3	75.6	87.3	101.6	56.2	63.3	68.4	75.0	84.0	83.4	91.2		
Mexico	15.7	20.7	24.6	30.6	35.5	41.4	49.4	22.0	25.3	29.0	33.7	37.9	39.3	43.6		
Venezuela	4.6	4.4	5.4	4.0	4.0	5.8	6.7	5.3	6.2	5.8	7.2	10.2	8.8	8.8		
Other	23.4	23.1	28.4	31.7	36.0	40.1	45.5	28.9	31.9	33.7	34.0	36.0	35.3	38.8		
Other Countries in																
Asia & Africa	55.2	63.0	84.0	94.0	100.5	114.8	125.3	93.0	115.9	126.1	141.7	150.0	150.1	169.1		
Australia	6.6	7.1	9.1	10.9	11.7	11.6	12.1	3.8	4.4	5.1	5.6	6.7	6.4	5.9		
													</			

Sources: Economic Advisors, Inc. and Bureau of Economic Analysis.

Table 1
Summary of the Service Economy
(Monthly Indicators)

	1993:1	1993:2	1993:3	1993:4	1993:5	1993:6	1988	1989	1990	1991	1992
Total Employment—											
Millions of Persons	109.2	109.5	109.6	109.8	110.0	110.0	105.5	108.3	109.4	108.3	108.5
Services	86.2	86.5	86.5	86.8	87.0	87.1	80.4	83.0	84.5	84.5	85.4
Goods	23.0	23.1	23.0	23.0	23.0	22.9	25.2	25.3	24.9	23.7	23.1
Total Wages and Salaries—											
Billions of Dollars	3010.1	3004.7	3002.6	3013.5	3043.7	NA	2443.0	2586.4	2742.8	2812.2	2918.1
Services	2259.1	2248.0	2247.0	2254.9	2282.0	NA	1744.0	1862.3	1997.2	2074.8	2174.8
Goods	751.0	756.7	755.6	758.6	761.7	NA	699.0	724.1	745.6	737.4	743.2
Total Compensation											
%Change, Year-Over-Year	5.5	4.2	3.7	4.3	4.7	NA	8.0	5.9	6.0	2.5	3.8
Services	6.6	4.7	4.2	4.9	5.5	NA	8.4	6.8	7.2	3.9	4.8
Goods	2.3	2.7	2.2	2.3	2.2	NA	7.2	3.6	3.0	-1.1	0.8
Consumer Price Index—All Urban,											
%Change, Year-Over-Year	3.2	3.3	3.1	3.2	3.2	NA	4.1	4.8	5.4	4.2	3.0
Services	3.7	3.9	3.7	3.8	4.0	NA	4.6	4.9	5.5	5.1	3.9
Goods	2.4	2.6	2.3	2.5	2.3	NA	3.5	4.7	5.2	3.1	2.0

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, and Economic Advisors, Inc.

Table 2
Summary of the Service Economy
(Percent Change, SAAR, Except Where Indicated)

	1992:1	1992:2	1992:3	1992:4	1993:1	1993:2	1988	1989	1990	1991	1992
Gross Domestic Product											
(87 Dollars)	2.9	1.5	3.4	4.7	0.7	NA	3.9	2.5	0.8	-1.2	2.1
Services	1.8	0.4	2.4	1.0	1.4	NA	3.6	2.3	2.5	1.4	1.3
Goods and Construction	4.2	2.8	4.5	8.7	0.0	NA	4.2	2.8	-0.8	-3.8	2.9
Goods	1.7	2.7	6.2	9.3	0.3	NA	5.5	3.7	-0.3	-2.3	2.5
Construction	16.2	3.6	-3.1	6.0	-1.2	NA	-0.4	-0.8	-3.1	-9.9	4.9
GNP—Product Measure											
(87 Dollars)	—	—	—	—	—	—	3.9	2.5	0.8	NA	NA
Services	—	—	—	—	—	—	3.9	3.5	1.2	NA	NA
Goods	—	—	—	—	—	—	4.1	0.1	-0.3	NA	NA
Manufacturing	—	—	—	—	—	—	5.3	0.8	-1.0	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	1.6	-1.6	1.5	NA	NA
Consumption Expenditures	5.1	-0.1	3.7	5.1	0.8	NA	3.6	1.9	1.2	-0.6	2.3
Services	2.2	1.2	3.1	2.1	3.2	NA	3.7	1.9	1.9	1.1	2.1
Goods	8.6	-1.7	4.5	8.8	-2.1	NA	3.5	1.9	0.2	-2.6	2.5
Plant and Equipment Expenditures—											
Current Dollars	4.5	3.9	5.0	9.6	3.4	NA	11.0	11.4	5.3	-0.7	3.2
Services	14.9	8.3	7.2	8.9	7.3	NA	8.3	11.3	5.2	1.6	8.3
Goods	-12.5	-4.1	0.8	10.9	-4.3	NA	15.7	11.6	5.5	-4.5	-5.5
Corporate Profits—Current Dollars											
%Change, Year-Over-Year	8.4	8.9	3.4	21.9	8.4	NA	15.9	-1.9	3.6	-1.5	10.6
Services	7.0	-0.2	-9.5	12.0	5.8	NA	4.7	2.8	6.7	8.0	2.4
Goods	11.3	27.6	28.5	42.3	13.5	NA	34.9	-8.0	-1.0	-16.5	27.4

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Bureau of the Census and Economic Advisors, Inc.

Table 3
Summary of the Service Economy
 (Billions of 1987 Dollars, SAAR, Except Where Indicated)

	1992:1	1992:2	1992:3	1992:4	1993:1	1993:2	1988	1989	1990	1991	1992
Gross Domestic Product (87 Dollars)	4873.7	4892.4	4933.7	4990.8	4999.9	NA	4718.6	4838.1	4877.5	4821.0	4922.6
Services	2520.1	2522.4	2537.5	2544.0	2552.7	NA	2349.7	2403.8	2463.0	2497.6	2531.0
Goods and Construction	2353.5	2370.0	2396.1	2446.8	2447.1	NA	2368.9	2434.2	2414.5	2323.4	2391.6
Goods	1924.0	1936.7	1966.2	2010.6	2012.2	NA	1892.5	1961.7	1956.8	1911.2	1959.4
Construction	429.5	433.3	429.9	436.2	434.9	NA	476.3	472.4	457.7	412.2	432.2
GNP—Product Measure (82 Dollars)	—	—	—	—	—	—	4718.6	4838.0	4877.5	NA	NA
Services	—	—	—	—	—	—	3403.3	3521.1	3564.3	NA	NA
Goods	—	—	—	—	—	—	1315.3	1316.9	1313.2	NA	NA
Manufacturing	—	—	—	—	—	—	924.6	932.4	922.8	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	390.7	384.5	390.4	NA	NA
Consumption Expenditures	3249.0	3289.3	3288.5	3318.4	3359.9	NA	3162.4	3223.3	3260.4	3240.8	3314.0
Services	1797.4	1807.3	1812.9	1826.6	1836.2	NA	1698.5	1731.0	1764.6	1783.7	1820.8
Goods	1451.6	1482.0	1475.6	1491.8	1523.7	NA	1463.9	1492.3	1495.8	1457.1	1493.3
Plant and Equipment Expenditures—											
Current Dollars	529.9	535.7	540.9	547.5	560.2	NA	454.2	506.0	532.7	528.9	546.1
Services	340.8	352.9	359.9	366.2	374.1	NA	282.2	313.9	330.2	335.4	363.3
Goods	189.0	182.9	181.0	181.3	186.1	NA	172.1	192.1	202.5	193.5	182.8
Corporate Profits—											
Current Dollars	270.2	292.0	300.4	279.3	329.3	NA	271.2	266.0	275.5	271.4	300.3
Services	182.7	194.5	185.2	161.3	204.7	NA	153.7	157.9	168.5	182.1	186.4
Goods	87.5	97.5	115.2	118.0	124.5	NA	117.4	108.0	107.0	89.3	113.8
Current Account Balance—											
Quarterly Rates	-6.7	-18.3	-17.8	-23.7	-20.9	NA	-126.7	-101.1	-90.4	-3.7	-66.4
Services Balance	14.0	13.7	15.3	13.4	14.6	NA	12.7	25.8	32.1	45.3	56.4
Private Services Balance **	15.0	14.7	16.2	14.7	15.4	NA	20.3	33.9	41.1	52.2	60.6
Exports	41.6	41.5	42.4	42.3	43.2	NA	100.7	118.0	138.1	152.3	167.8
Imports	-26.7	-26.8	-26.2	-27.7	-27.8	NA	-80.4	-84.1	-97.0	-100.0	-107.2
Merchandise Trade Balance	-17.8	-24.8	-27.6	-26.0	-29.1	NA	-127.0	-115.7	-108.9	-73.8	-96.1

Sources: Bureau of Economic Analysis, Bureau of the Census and Economic Advisors, Inc.



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Economic Concepts for Economic Classifications— Changes for the Future

Jack E. Triplett

The U.S. Standard Industrial Classification (SIC) system was developed in the 1930's and early 1940's. It is used by statistical agencies to ensure comparability in industrial definitions and classifications across industrial surveys. Although the system is frequently reviewed, and is revised periodically to keep abreast of changes in the economy, the last time in 1987, the SIC has been subjected to strong and increasing criticism by many data users.

In response to user concerns, the U.S. Census Bureau sponsored the International Conference on the Classification of Economic Activities in Williamsburg, Virginia in 1991, (hereafter, the "Williamsburg Conference"). Many conference participants urged the government to develop a new classification system based on a conceptual framework.

To further examine statistical user dissatisfaction and proposals put forth at the Williamsburg Conference, in 1992 the Office of Management and Budget established the Economic Classification Policy Committee (ECPC). The ECPC is charged with a "fresh slate" examination of classification systems, with particular emphasis on their conceptual foundations, and emphasizing improvement of services data and the international comparability of industrial statistics.

Mr. Triplett is Chief Economist of the U.S. Bureau of Economic Analysis, and Chairman of the Economic Classification Policy Committee.

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The ECPC has joined with Statistics Canada and with the Instituto Nacional de Estadística, Geografía e Informática of Mexico to form a working group to study conceptual issues in economic classifications. Research is underway to determine if the U.S. and Canadian classification systems mesh, and to design a system that not only improves the data but increases comparability between industrial statistics in all three countries.

The Conceptual Issues: Production-Oriented or Demand-Side Concept

One of the ECPC's major tasks is the development of an underlying economic concept for economic classifications. When applied to industrial statistics, the search for an economic concept implies the return to an old question: What do we mean by the term "industry?"

The ECPC has approached the answer to the industry definition question by posing a more fundamental question: "For what uses are industrial statistics wanted?" The underlying classification concept can be derived from the specified use of economic data. It then follows that if the classification concept is implemented consistently throughout the system, the data will be appropriate for the intended use. The ECPC's approach to the question of industry definition marks perhaps its greatest departure from past work on classifications.

Obviously, there are multiple uses for industrial statistics. The ECPC's analysis suggests that this multiplicity of uses can be divided into two broad categories which imply two alternative economic concepts for classifications—a production-oriented concept and a demand-side concept.¹

For some uses, grouping by similarity of production processes will provide the appropriate industrial statistics. Examples of such uses include the measurement and analysis of productivity at the industry or sector level, comparisons of the capital intensity of production across different economies, or marketing analysis of products or services that are inputs to particular production processes. In the ECPC issues papers, the economic concept that is appropriate for such uses of industrial statistics is designated a "production-oriented" or "supply-based" concept. In international materials on classifications, this production-oriented economic concept is similar to the definition of the term "activity."²

¹ The two concepts are summarized in section 1.2 of ECPC Issues Papers No. 1, "Conceptual Issues," and in a somewhat more technical treatment in Jack E. Triplett, "The Theory of Industrial and Occupational Classifications and Related Phenomena," *Proceedings, Bureau of the Census 1990 Annual Research Conference, March 18-21, 1990, Arlington, Virginia: U.S. Department of Commerce*, pp. 9-25. (Two "issues papers" requesting public comment on a series of conceptual questions concerning economic classifications have appeared in the *U.S. Federal Register*. Issues Paper No. 1, "Conceptual Issues," and Issues Paper No. 2, "Aggregation Structures and Hierarchies," are available from the ECPC.)

Also available from the ECPC are Issues Papers No. 3, "Collectibility of Data," No. 4 "Criteria for Determining Industries," and No. 5, "The Impact of Classification Revisions on Time Series."

² United Nations, "International Standard Industrial Classification of all Economic Activities," Statistical Papers, Series M, No. 4, Rev.3, New York: Statistical Office of the United Nations, 1990, p.9, par. 29.

The second concept for economic classifications has been designated "demand-based," or "market-oriented." Examples of statistics used in this manner include calculating market share for studies of monopoly power, marketing analyses that are concerned with competitive shares, analysis of demand for consumption goods, or demand for inputs to other production or distribution processes. For these uses, commodities are grouped by similarities of use or because they are used together.

Sugar products provide an example where the two broad principles conflict in application. In the U.S., these products are divided into separate categories on the basis of production differences that include raw materials and processing. Although the product of sugar beets and sugar cane are probably perfect substitutes for one another, they are classified in different categories. Present sugar industry groupings seem inappropriate, however, for studying competitive market share or demand analysis. Indeed, for many market-oriented purposes, the appropriate category is not sugar products at all, but rather "sweeteners." Grouped in this way, in addition to sugar, sweetener products could include corn sweeteners, honey, and even artificial sweeteners, which currently are located in the inorganic chemicals industry in the U.S. SIC.

International Comparisons

The distinction between the two conceptual approaches appears in comparisons of international classification systems as well, and can be seen in the work underway to form a concordance between Canadian, U.S. and European classification systems. Of the cases on which the three countries' statistical agencies cannot agree in interpreting International Standard Industrial Classification (ISIC) system, one or more of the three has implemented a production-oriented concept and another has adopted a demand-based concept. The United States, for example, places "wood chips" in different industries because different production processes are used. This corresponds to the production-based classification concept. The European system applies the demand-based concept, grouping all wood chips together because the chips serve the same purposes.

Thus, whether comparing industrial classifications within one country, or comparing classifications across the system used in different countries, decisions based on each of the classification concepts are encountered.

The U.S. and Canada have two studies underway that examine 4-digit SIC industries in the respective countries to determine the extent to which industries now reflect primarily demand-based or production-oriented economic concepts. Both studies are close to completion and will be available late in the fall of this year.

Services Classification

Many classification problems in the U.S. SIC system have resulted from the rapid growth and radical changes in the nature of service industries. In 1990, nongoods industries accounted for 77 percent of employment and 61 percent of gross domestic product in the United States. Between 1959 and 1990 employment grew by 294 percent in business and personal services alone, while employment in the goods-producing industries grew by only 22 percent.

Some of the changes affecting services most often cited include:

- Globalization of economic activity and increased trade in services;
- Technological changes, particularly in the areas of computers, information, and communications services, and their importance as both inputs and outputs of service industries;
- Changes in intangible inputs, such as education, training and the growth of knowledge, which have increasingly become the basis for service transactions;
- Changes in government policy and programs, such as decreased regulation of transportation and financial services; and
- Contracting out of services (especially from manufacturing).

The Goods-Services Boundary

Difficulties with definitions and the boundary between goods and services are too lengthy to cover completely in this article. However, for example, in 1991 at the Williamsburg Conference, economist Joel Popkin emphasized "There is an urgent need to redefine and retitl the major industries that comprise the nongoods sector in ways that better describe their role and significance in the U.S. industrial structure." Others repeated this theme.

Mr. Popkin proposed separating "distribution networks" that include transportation, communications, public utilities, wholesale and retail trade, and manufacturers' sales branches from a "services" division that consists of producers' services, consumer services, social services and public administration.

In addition, because there is no internationally agreed official definition of services, cross-country comparability of statistics is limited. Even within the U.S. complaints regarding definition arise among data users. At the Williamsburg Conference, former Under Secretary of Commerce Courtney Slater remarked that defining services as everything other than what is classified as "goods" results in a "conglomerate that is too large and too diverse to produce meaningful statistics."

The boundary between goods and services may also be ambiguous because many sales contracts for goods include an explicit or implicit bundle of associated services. Any classification system that distinguishes between goods and services industries inevitably misses services such as research, engineering and design, or marketing and consulting that are bundled in with goods production. In many cases, ambiguity arises because the goods-services boundary depends on the purposes for which economic data are required.

Applying the Conceptual Categories to Services

Some of the problems faced in classifying services are difficult ones for which the paradigm that applies to goods is not entirely satisfactory. It is not that services and services firms differ wholly from goods and goods-producing establishments, rather, it is a matter of degree. The problems that

arise in classification systems for goods often arise in more intense forms when one is dealing with services. Moreover, detailed services data collection is relatively new and much of the requisite research on services needed to carry out a classification system for the economy of the 21st century has not been done. Under the present institutional arrangements in the U.S., disclosure rules and legislation that regulate the exchange of information among statistical agencies make it difficult to collect the appropriate information efficiently and with minimal respondent burden.

The tourism industry provides an example of some of the conflicts that arise in applying one conceptual category to services. There is frequent request from data users for a "tourism industry" category that would include amusement parks, recreation facilities, air transport and other forms of travel, hotels and motels, and restaurants. While many of these businesses cater to tourists, they provide services to business travelers and local residents, as well. Only a portion of the sales receipts of such businesses derives from tourism. Put another way, a "tourism industry" is a demand-side grouping that would cut across industries defined on a supply-side basis, such as restaurants, hotels and air travel.

The tourism example is parallel to the "sweetener" example presented earlier in which sweeteners produced by different processes would be combined into one category. In the tourism case, hotel and airline services to tourists would be placed in a demand-based tourism industry because those services are all used together by consumers when they travel for personal pleasure. That the same services are also provided to business travelers does not necessarily justify putting business travel and tourism together, because the two activities are perceived as quite distinct markets.

Measuring Services: Implications for Classifications

Collection and estimation difficulties associated with the service sector are well known and have been widely discussed. Defining measures of output, handling heterogeneity and quality change in price statistics, and collecting employment data from small employers are problems that are frequently encountered in connection with services data.

Most of the problems that arise in measuring output of services also impede classifying service industries. In some service industries the output is as readily defined as it is in most goods-producing industries. In other industries the output is not entirely clear, and because the output is not well defined, industry boundaries for classification purposes are likewise not well defined. Economists do not fully understand how to measure the output of financial services, for example, and without adequate measures of financial outputs, classifications experts find it more difficult to group financial activities into industries.

Of course, all conceptual issues for service industries cannot be resolved before a new classification system is constructed. However, in constructing the system, it is important to keep in mind some of the difficult issues, and to try to anticipate current and future user needs for services data.

Economic Classification Policy Committee Decisions and Future Plans

For both goods and services, many issues remain to be addressed. The following three questions are among the major decisions the ECPC must resolve:

- 1) Is a consistent concept for economic classification desirable?
- 2) Are multiple classification systems feasible or desirable?
- 3) Is the implementation of a consistent economic concept feasible?

Conflicting positions are being examined, and the ECPC has studies underway on statistical and other methods for distinguishing industries, and to answer collectibility questions that limit what can be accomplished in economic classifications. To date, five issues papers have been published and the ECPC has sought comments from statistical agency advisory committees of the U.S. Bureau of the Census and Bureau of Labor Statistics. In addition, the ECPC has just released a report, "Summary of Public Comments to ECPC Issues Papers Nos. 1 and 2," that presents responses to conceptual issues discussed in its first to issues papers.

The ECPC has begun planning an extensive public outreach program, and will continue to meet with agency advisory committees and with the business community. Comparable discussions will be held with Canadian users of industrial statistics.

The ECPC's research and deliberations on classifications will be made public as the work proceeds over the next several years. Domestic users and the international statistical community are welcome to comment on approach, the topics presented in the issues papers, and on the research studies as they become available.

For more information, or to receive copies of ECPC issues papers and studies, please write to Brenda M. Erickson, Economic Classification Policy Committee, Bureau of Economic Analysis (BE-42), U.S. Department of Commerce, Washington, D.C. 20230; or telephone (202) 606-9620; fax (202) 606-5311.

SERVICES ECONOMIC HIGHLIGHTS

CSI

Allen Sinai
Chief Economist, Economic Advisors, Inc.

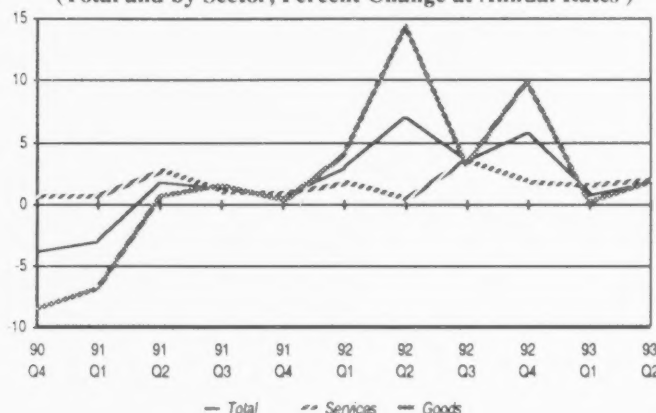
The Service Economy At a Glance—Moving On!

- **Service Gross Domestic Product (GDP) Measured by Expenditures** increased 1.9 percent at an annual rate in the second quarter of 1993 over the first quarter. The acceleration in growth from a 1.4 percent increase in the previous quarter was the result of higher government spending.
- **Personal Consumption on Services** increased a price-adjusted 2.1 percent at an annual rate in the second quarter of the year, following a 3.1 percent increase in the first quarter of 1993.
- **Private Service Exports** reached a new record high \$43.8 billion in the second quarter of 1993. At \$28.7 billion, second-quarter service imports also set a record. The surplus on service trade declined to \$15 billion from \$15.2 billion in the first quarter.
- **Profits** of service-producing industries were up 11.2 percent in the second quarter of 1993 from a year earlier, following a marginal 0.2 percent decline in the first quarter. All service industries showed higher profits for the quarter. The largest gains were concentrated in the wholesale and retail trade and other nonfinancial service industries.
- **Service Employment** continued to make steady gains in 1993. In September, employment in service industries was 1.904 million persons higher than in September 1992.
- **Consumer Service Price Inflation** has remained essentially unchanged at about 4 percent for the last five months through September.
- **Plant and Equipment Expenditures** by service-producing industries was 14.9 percent higher in the second quarter of 1993 than the previous quarter, at an annual rate, not adjusted for changes in prices. All service industries, except transportation, increased spending on P&E for the quarter.

Bottom Line: The economic recovery is expected to continue at the modest pace of expansion seen so far. Judging from the growth in service sector employment, it is reasonable to say that the service sector is contributing its fair share to the recovery. Moreover, the high rate of investment in plant and equipment by service industries implies that service businesses are preparing for even greater output in the future.

The service economy refers to the total economy, in which services activities are the dominant factor. The service economy comprises 73 percent of real production GNP and 79 percent of employment. Major segments are: Communications; Transportation; Public Utilities; Finance, Insurance and Real Estate; Wholesale and Retail Trade; Government; and "Services," a diverse category including Business Services, Personal Services, Professional and Health Services.

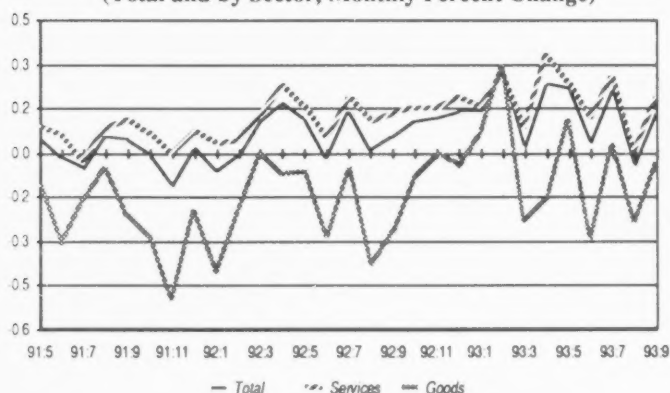
Chart 1
Real Gross Domestic Product
(Total and by Sector, Percent Change at Annual Rates)



Service GDP Growth Picks Up

Service-GDP—measured on the expenditure basis—increased 1.9 percent at an annual rate in the second quarter over the first, following a 1.4 percent increase the previous quarter. The pick-up in service GDP growth was mainly the result of a rebound in government spending on services, both at the federal and, state and local levels. The goods component of GDP was up 1.9 percent from the first quarter following a 0.2 percent increase in the first. Excluding construction, second-quarter goods GDP increased 1.7 percent while construction activity was up 2.5 percent.

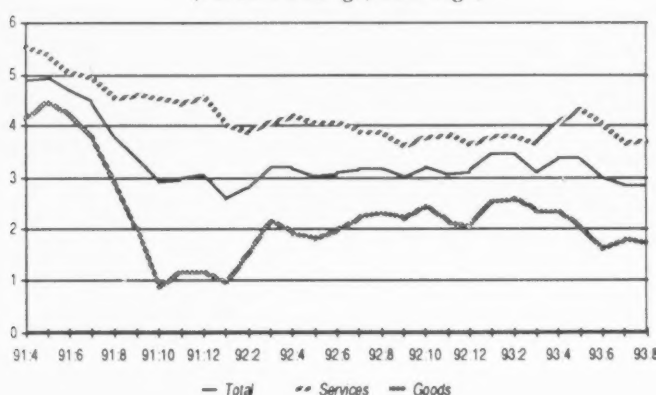
Chart 2
Employment Growth
(Total and by Sector, Monthly Percent Change)



Service Employment Increases

Employment in the service sector continued to make gains. In September employment was up 164,000 compared to August, and 1.904 million higher than in September 1992. Most of the twelve-month gains continued to be in business and health services and in retail trade. Just under half the monthly gains, however, were in the government sector. Employment in the goods sector was down 8,000 from August and off 125,000 from year-earlier levels.

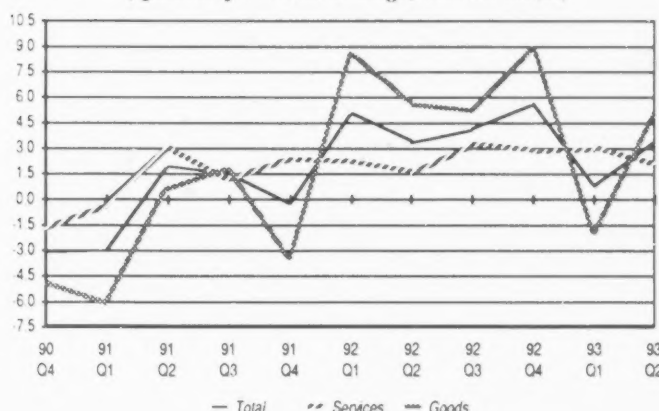
Chart 3
Consumer Price Indices
(Percent Change, Year Ago)



Service Inflation Stabilizes

Prices of consumer services increased 4 percent in September from a year earlier, following increases of about the same size in the previous five months. Price increases for consumer goods slowed to only 1.1 percent in September following a 1.5 percent increase in August. Goods inflation is now the slowest in almost two years. Overall consumer inflation was 2.7 percent in September, down from 3 percent plus in the first six months of the year.

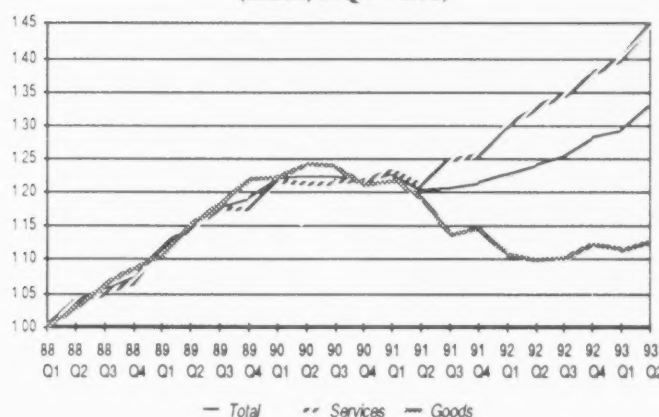
Chart 4
Real Personal Consumption Expenditures
(Quarterly Percent Change, Annual Rates)



Service Consumption Growth Slows

Real personal consumption expenditures on services increased 2.1 percent at an annual rate in the second quarter from the first. The rate of growth was down from 3.1 percent in the first quarter and was the slowest in six quarters. The slower rate of increase was in part a result of lower expenditures on household use of electricity and gas. Personal consumption expenditures on goods was up 5.1 percent following a 1.9 percent decline in the first quarter.

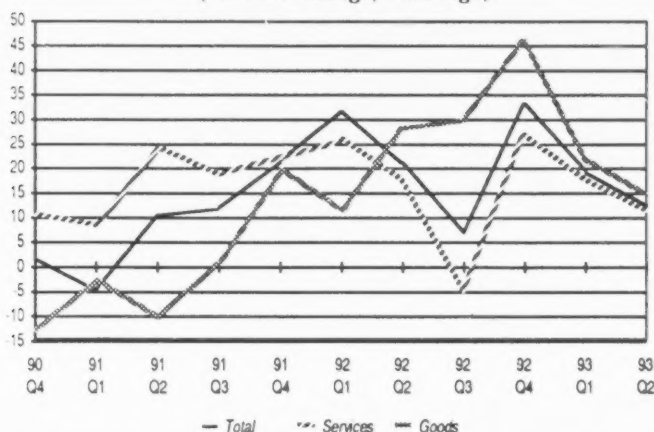
Chart 5
Plant & Equipment Expenditures
(Index, 88Q1 = 1.00)



Higher Plant & Equipment Expenditures

Plant and Equipment (P&E) expenditures by service industries increased at an annual rate of 14.9 percent in the second quarter from the first, following a 6.9 percent increase in the first quarter. All services industries except transportation, which cut back, boosted investment spending. P&E spending by goods-producing industries increased 5 percent after a 2.9 percent decline in the first quarter.

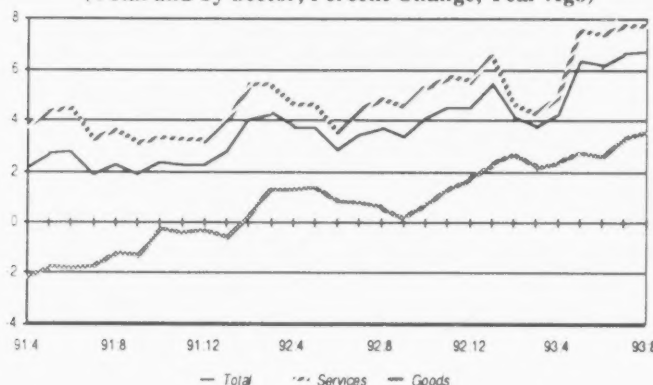
Chart 6
Corporate Profits for Domestic Industries
(Percent Change, Year Ago)



Profits for Service Industries Up

Corporate profits for service-producing industries increased 11.2 percent in the second quarter of the year from the second quarter of 1992, following a 0.2 percent decline in the previous quarter. All major service industries showed higher profits. Profit gains for wholesale and retail trade were the strongest. Profits for goods-producing industries were up 14.5 percent after a 20.2 percent increase in the first quarter of 1993.

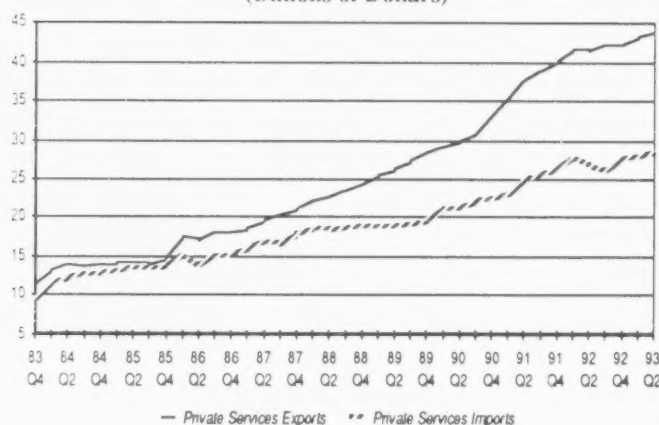
Chart 7
Wages and Salaries
(Total and by Sector, Percent Change, Year Ago)



Service Compensation Up

Total wages and salaries earned by workers in the service sector were, on average, 5.8 percent higher in August from a year earlier. In 1993 so far, service-sector wages and salaries were 5.2 percent higher than in the same period in 1992. Wages and salaries earned by workers in the goods-producing sector increased at a slower 2.4 percent rate in August and were 1.2 percent higher in the first eight months of the year compared to the first eight months of 1992.

Chart 8
Private Service Trade
(Billions of Dollars)

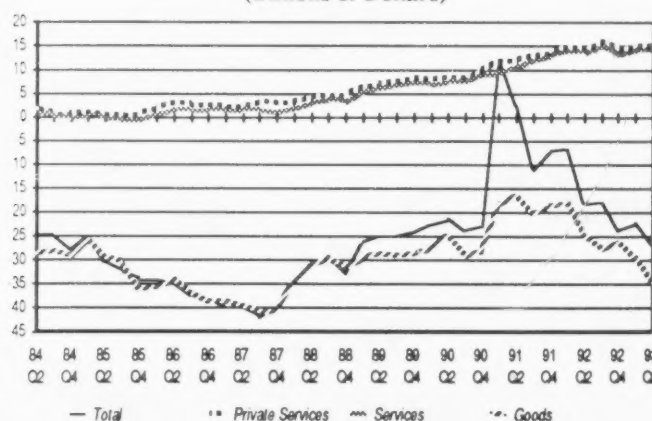


Record High Service Exports

Private service exports increased \$529 million in the second quarter of 1993 from the first, to a new record high \$43.8 billion. Imports of services were also at a record high \$28.7 billion, up a large \$684 million from the first quarter. At \$15 billion, the surplus on private services trade was down \$155 million from the fourth quarter. For the first half of 1993 the private services trade surplus now stands at an annualized \$60.5 billion, about the same as the 1992 surplus.

Private service trade refers to exports and imports in such sectors as travel, tourism, insurance, education, and fees and royalties, and excludes receipts and payments on investments and government transactions.

Chart 9
Current Account Balance and Components
(Billions of Dollars)



Higher Current Account Deficit

The current account deficit widened to \$26.9 billion in the second quarter of 1993 from \$22.3 billion in the first quarter of the year. The main factor contributing to the deterioration was an increase in the merchandise trade deficit to \$34.4 billion from \$29.3 billion in the first quarter. For the first half of 1993, the current account deficit stands at \$98.5 billion at an annual rate, about double the \$50 billion deficit recorded in the first half of 1992.

MEXICO: ECONOMIC DEVELOPMENT AND PROGRESS

by Allen Sinai and Zaharo Sofianou

Over the past five years or so, while the economies of most major industrialized countries were either slowing or were in downright recession, Latin America was making a strong comeback. Governments in the region's largest economies came to realize the immense potential that their countries could have if they could dismantle government regulations, barriers to trade, and return state-owned concerns to the private sector. One reason for the almost uniform movement to free market reforms was the success enjoyed by Chile, the first Latin American economy to convert. Reasons more close to home, however, were the chronic rate of inflation, which many "shock-type" policies failed to cure; the mounting inefficiencies of state run companies and the growing need for the central government to cover the deficits.

Many Latin American countries can claim progress towards free market reforms, however, progress has been faster and results more evident in Mexico and Argentina. Both countries were able to change a chronic government deficit to a surplus, reduce triple-digit inflation to single digits and to privatize most of the state-run companies in under five years. Progress in Venezuela and Brazil, has been more uneven, and in both cases political problems hindered economic reforms.

For Mexico, the recovery began in 1989 when the economy grew 3.3 percent, following more than five years of stagnation and high inflation. The improvement was the result of economic policies initiated by President Miguel de la Madrid. The reforms were continued and enhanced under his successor, the current Mexican President, Carlos Salinas de Gortari, and included price-wage controls, and tight fiscal and monetary policies. Particularly important for Mexico's success was the country's exchange rate policy. In its original form, the policy called for a small, pre-announced daily devaluation in the currency. For foreign investors, this meant that they could plan on the devaluation of the currency rather than be faced with sudden large changes in the value of any assets invested in Mexico. The combination of a predictable foreign exchange rate policy and high yields of return helped to bring foreign capital into Mexico, as well as "flight" capital—i.e., money belonging to Mexicans that had previously left the country. Since the end of 1988 when Salinas came to office, capital flows into Mexico have amounted to \$33.09 billion. These inflows are well over the \$24 billion the Salinas Administration expected over its six-year term.

Table 1
Origin of Mexican Gross Domestic Product
(Percent of Total)

	1980	1985	1988	1989	1990	1991	1992
Services	60.0	59.0	58.4	58.0	57.3	57.2	57.3
Financial, Insurance, Real Estate							
Business Services	7.5	6.5	6.5	6.2	5.9	5.6	5.4
Wholesale/ Retail Trade							
Restaurants and Hotels	28.0	26.7	25.7	25.8	25.7	25.9	26.0
Community, Social, Personal Services	17.2	18.3	18.4	18.0	17.6	17.6	17.4
Transport, Storage, Communication	6.4	6.2	6.4	6.4	6.6	6.7	7.0
Electricity	1.0	1.3	1.5	1.5	1.5	1.5	1.5
Goods	40.0	38.9	38.6	38.7	39.2	39.0	38.7
Manufacturing	22.1	21.4	21.7	22.5	22.8	22.9	22.7
Mining, incl. Petroleum	3.2	3.7	3.8	3.6	3.6	3.5	3.4
Agriculture, Forestry, Fishing	8.2	8.5	8.1	7.6	7.8	7.6	7.3
Construction	6.4	5.4	5.0	5.0	5.1	5.0	5.3

*Figures do not add up to 100% due to statistical discrepancies

Sources: The Central Bank of Mexico and Economic Advisors, Inc.

Allen Sinai is Chief Economist and Zaharo Sofianou, Senior Economist of Economic Advisors, Inc., an affiliate of Lehman Brothers, Inc.

Inflation in Mexico, running at 114.2 percent in 1988, is now running at about 9.5 percent on an annual rate—the country's lowest in twenty years. The wage and price controls have been instrumental in reducing inflation by putting a lid on price and wage increases. Nevertheless, cutting down government spending and eliminating the budget deficit was also very important in reducing inflation. Privatizing most industries and companies, including banks, was yet another way the government reduced the deficit, while at the same time raising productivity in these industries.

The overall economic program was difficult for the Mexican people, who had to accept lower pay increases over the period in order to help reduce inflation. Nevertheless, the results were positive for the economy, which in turn helped boost Mexico's image abroad. Mexico was the first developing economy to have its debt reduced and rescheduled in more favorable terms under the Brady Plan in 1990.

The increased confidence in the Mexican economy brought foreign capital back into the country after years of capital outflows. This confidence also bolstered domestic businesses, which increased outlays in new plant and equipment in preparation of the pending economic improvement. In the five years that President Carlos de Gortari has been in office, the Mexican economy has made great progress in many areas. Private fixed investment increased a price-adjusted 48 percent, and made the largest contribution to growth in the economy. Over the same period of time, overall economic growth was 3.5 percent per year, compared to a 0.5 percent rate of growth in the previous five-year period.

As is for most developing countries, the economic growth and development spurred demand for imports—the result of a faster increase in demand than in domestic production. Imports of goods and services, adjusted for inflation, more than doubled between 1988 and 1992. As more than 70 percent of Mexico's trade is with the United States, U.S. trade data confirm Mexico's large import growth: during this period U.S. exports of goods and services to Mexico doubled, from \$25 billion in 1988 to \$50 billion in 1992. And, while U.S. imports of goods and services from Mexico also increased, they did so at a slower pace, so that the United States had a trade surplus of \$5.8 billion in 1992, compared to a \$4.3 billion deficit in 1986.

The higher rate of Mexican imports came hand in hand with the country's economic development. Higher economic growth brought with it increased need for more imports, as the country's productive capacity was not sufficient to meet its demand. On one level, a developing

Table 2
Mexican GDP - Expenditure Breakdown
(Percent Change, Except Otherwise Indicated)

	1982	1983	1985	1988	1989	1990	1991	1992
Gross Domestic Product	-0.6	-4.2	2.6	1.4	3.3	4.4	3.6	2.7
Personal Expenditure	-2.5	-5.4	3.3	2.1	6.8	6.1	4.6	5.9
Private Investment	-24.3	-27.0	10.3	15.4	4.8	10.7	7.3	8.6
Fixed Investment	-16.8	-28.3	7.9	5.8	6.4	13.1	8.1	13.9
Inventory Accumulation								
(Billions of Pesos)	-0.0	-0.0	-0.0	-0.3	-0.0	-0.0	-0.0	-0.0
Government Expenditures	2.0	2.7	0.9	-0.5	-0.1	2.3	3.9	2.2
Net Exports								
(Billions of Pesos)	226.0	457.6	449.7	386.5	463.7	531.4	424.2	341.1
Exports of Goods & Services	21.8	13.6	-3.4	4.9	2.3	3.6	5.4	0.3
Imports of Goods & Services	-37.9	-33.8	11.0	44.4	21.3	19.7	16.4	21.2

Source: The Central Bank of Mexico and Economic Advisors, Inc.

country needs capital goods to put in place more efficient means of production, or to upgrade existing productive equipment. On another level, developing countries need intermediate goods and raw materials to help them produce a wider range of products. On a third level, as incomes rise, there is increased demand for more consumer goods and services. In Mexico's case, with trade tariffs as high as 20 percent, some of this demand was met through imports. Continued economic development and lower tariffs will guarantee continued higher imports from the United States.

Higher Current Account Deficit

The higher rate of growth of imports over exports, however, has resulted in a trade gap for Mexico, which grew from a \$2.4 billion deficit in 1988 (and a \$4 billion surplus in 1987) to a \$22.8 billion deficit in 1992. So far, Mexico has been able to finance its deficit without having to dip into its foreign exchange reserves or borrow funds from abroad. Capital inflows into the country have been sufficiently large for Mexico to pay for the goods and services it has been importing. Being sensitive to the growing current account deficit, the Salinas administration took measures to cool down the economy, and to limit the growth in the external deficit.

Uncertainty over the North American Free Trade Agreement (NAFTA), however, has added to the economic slowdown, as both local and foreign manufacturers put expansion plans on hold. As a result, economic growth slowed to 2.7 percent in 1992 from 3.6 percent in 1991 and 4.4 percent in 1990. In the first half of 1993, the economy slowed even more, with preliminary rates of growth of 2.4 percent in the first quarter and 0.3 percent in the second quarter. The second quarter growth of 0.3 percent has been the slowest since President Salinas came to office.

The sharp economic slowdown in domestic economic activity has helped to reduce import demand and lowered the country's foreign trade deficit. For the first half of the year, imports grew only 7.4 percent compared to the first half of 1992, down from a 24.3 percent increase in the same

Table 3
U.S. Services Trade with Mexico
(Millions of \$)

	1989	1990	1991	1992
Exports				
Total Private Services	6,023	7,419	8,261	8,911
Travel	3,926	5,108	5,367	5,822
Passenger Fares	349	464	514	555
Freight	78	114	142	151
Port Services	230	232	269	249
Royalties & Lisc. Fees	189	236	333	421
Other Private Services	*D	1,217	1,588	1,661
Education	79	92	96	102
Financial Services	82	129	260	261
Insurance	19	-20	27	52
Telecommunications	98	*D	169	171
Business, Professional & Tech. Services	469	419	538	445
Film & Tape Rental	16	34	22	46
Other Services	296	*D	357	388
Imports				
Total Private Services	6,578	7,388	7,770	7,977
Travel	4,276	4,879	5,111	5,229
Passenger Fares	508	565	531	559
Freight	68	75	86	64
Port Services	306	264	276	290
Royalties & Lisc. Fees	1	16	10	3
Other Private Services	1,410	1,586	1,754	1,828
Education	44	50	52	54
Financial Services	(*)	(*)	41	54
Insurance	-3	-3	-5	-2
Telecommunications	631	*D	755	*D
Business, Professional & Tech. Services	90	103	171	198
Film & Tape Rental	0	0	0	1
Other Services	605	659	706	*D

*D - Suppressed to avoid disclosure of data of individual companies.

(*) - Less than 500,000

Sources: Bureau of Economic Analysis and Economic Advisors, Inc.

period a year earlier, when the economy was growing at a much faster rate. As a result, the trade deficit improved to \$6.9 billion in the first half of 1993 from \$7.3 billion in the first half of 1992. The current account deficit, at \$4.837 billion in the second quarter of 1993 was down from \$5.562 billion in the same quarter a year earlier, and was the smallest deficit in a year and a half.

While economic slowdowns are often used by policy makers to correct imbalances in the external sector, or to reduce inflation, they are not necessarily the best way of achieving the desired effects. In Mexico's case, covering the current account gap through an increase in exports would have been more desirable, both for Mexicans and for Mexico's trading partners. In this case, Mexico's economic slowdown has reduced its imports from the United States by a considerable amount. In the first six months of the year, the U.S. merchandise trade surplus with Mexico was down to about \$3 billion at an annual rate, from \$5.4 billion in 1992 as a whole.

Ideally, the best way to reduce the external imbalance is to increase exports, rather than to reduce growth and imports—a policy which not only hurts the domestic economy but also has a domino effect on trade partners. In the case of trade between the United States and Mexico, the two countries should be able to gain from their differences: U.S. consumers should be able to benefit from labor intensive goods produced in Mexico at a lower cost, while Mexican businesses and consumers can continue to benefit from goods and services requiring the production techniques of a technologically more advanced work force. Both nations will gain from an improved trade relationship, although the gains will not necessarily be evenly distributed among all the economic sectors, or through time.

Because of the different stages of economic development, both countries stand to gain from increased trade and cooperation in several ways. One way is through expansion of U.S. businesses into Mexico in the form of foreign direct investment. For U.S. businesses, the advantage is that they will have access to over eighty million consumers, whose ownership of household goods and consumption of services is on the rise. Many U.S. workers fear that American companies will set up shop in "low-wage" Mexico and displace U.S. workers by exporting the goods back to the United States. In fact, *many of the goods produced in Mexico will be consumed in the developing domestic market or exported to other Latin American countries.* In addition, for service industries such as banks, insurance or travel companies, locating in Mexico can only result in additional sales to the domestic market, which in time will demand more sophisticated services. For Mexico, the gain will be in the form of capital and in the transfer of technology for its labor force.

Conclusion

In the last five or six years the Mexican economy has made great progress. The government has achieved economic growth after years of stagnation, and has succeeded in dismantling barriers and regulations set up over decades, which drained the economic energy from the productive sector. The Administration of Carlos Salinas de Gortari continued and expanded the work of Miguel de la Madrid by introducing market reforms and privatizing government industries, while at the same time reducing the government deficit and inflation. The economic strengths and weaknesses of Mexico, as a developing country, are different from those of the United States, its largest trading partner. It is because of these differences, however, that both countries have much to offer one another through increased trade and cooperation.

Table 1
Summary of the Service Economy
(Monthly Indicators)

	1993:4	1993:5	1993:6	1993:7	1993:8	1993:9	1988	1989	1990	1991	1992:0
Total Employment—											
Millions of Persons	109.8	110.1	110.1	110.3	110.3	110.5	105.2	107.9	109.4	108.3	108.5
Services	86.8	87.1	87.2	87.4	87.4	87.6	80.1	82.6	84.5	84.5	85.4
Goods	23.0	23.0	22.9	22.9	22.9	22.9	25.1	25.3	24.9	23.7	23.1
Total Wages and Salaries—											
Billions of Dollars	3066.6	3091.9	3084.4	3104.4	3128.8	NA	2443.0	2586.4	2745.0	2815.0	2973.1
Services	2302.2	2326.1	2322.5	2337.2	2359.1	NA	1744.0	1862.3	1999.3	2076.9	2216.5
Goods	764.4	765.8	761.9	767.2	769.7	NA	699.0	724.1	745.7	738.1	756.5
Total Compensation											
%Change, Year-Over-Year	5.1	5.2	4.7	5.1	4.9	NA	8.0	5.9	6.1	2.6	5.6
Services	6.1	6.3	5.8	6.1	5.8	NA	8.4	6.8	7.4	3.9	6.7
Goods	2.2	1.9	1.5	2.1	2.4	NA	7.2	3.6	3.0	-1.0	2.5
Consumer Price Index—All Urban,											
%Change, Year-Over-Year	3.2	3.2	3.0	2.8	2.8	NA	4.1	4.8	5.4	4.2	3.1
Services	3.8	4.0	4.0	3.9	4.0	NA	4.6	4.9	5.5	5.1	3.9
Goods	2.5	2.3	1.7	1.5	1.5	NA	3.5	4.7	5.2	3.1	2.0

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, and Economic Advisors, Inc.

Table 2
Summary of the Service Economy
(Percent Change, SAAR, Except Where Indicated)

	1992:1	1992:2	1992:3	1992:4	1993:1	1993:2	1988	1989	1990	1991	1992
Gross Domestic Product											
(87 Dollars)	3.5	2.8	3.4	5.7	0.8	1.9	3.9	2.5	1.2	-0.7	2.6
Services	2.5	1.2	3.6	1.9	1.4	1.9	3.6	2.3	2.5	1.3	1.6
Goods and Construction	4.6	4.6	3.2	9.9	0.2	1.9	4.2	2.8	-0.1	-2.8	3.6
Goods	2.3	3.9	5.0	9.6	0.5	1.7	5.5	3.7	0.6	-1.4	3.0
Construction	15.3	7.9	-4.7	11.2	-1.3	2.5	-0.4	-0.8	-2.7	-8.8	6.4
GNP—Product Measure											
(87 Dollars)	—	—	—	—	—	—	3.9	2.5	0.8	NA	NA
Services	—	—	—	—	—	—	3.9	3.5	1.2	NA	NA
Goods	—	—	—	—	—	—	4.1	0.1	-0.3	NA	NA
Manufacturing	—	—	—	—	—	—	5.3	0.8	-1.0	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	1.6	-1.6	1.5	NA	NA
Consumption Expenditures	4.3	1.8	4.2	5.6	0.8	3.4	3.6	1.9	1.5	-0.4	2.6
Services	2.6	2.4	3.3	2.9	3.1	2.1	3.7	1.9	2.2	0.8	2.2
Goods	6.4	1.0	5.3	9.0	-1.9	5.1	3.5	1.9	0.8	-1.9	3.0
Plant and Equipment Expenditures—											
Current Dollars	4.1	5.0	4.5	8.9	3.5	11.6	11.0	11.4	5.3	-0.7	3.2
Services	13.4	9.6	6.0	9.5	6.9	14.9	8.3	11.3	5.2	1.6	8.2
Goods	-11.3	-3.4	1.5	7.9	-2.9	5.0	15.7	11.6	5.5	-4.4	-5.6
Corporate Profits—Current Dollars											
%Change, Year-Over-Year	12.5	10.0	-3.6	17.4	6.0	12.4	15.9	-1.9	7.8	4.8	9.1
Services	14.5	2.1	-19.5	6.5	-0.2	11.2	4.7	2.8	12.5	18.6	0.8
Goods	8.1	29.1	33.6	44.0	20.2	14.5	34.9	-8.0	1.0	-17.7	28.6

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Bureau of the Census and Economic Advisors, Inc.

Table 3
Summary of the Service Economy
 (Billions of 1987 Dollars, SAAR, Except Where Indicated)

	1992:1	1992:2	1992:3	1992:4	1993:1	1993:2	1988	1989	1990	1991	1992
Gross Domestic Product (87 Dollars)	4922.0	4956.5	4998.2	5068.3	5078.2	5102.1	4718.6	4838.1	4897.3	4861.4	4986.3
Services	2515.1	2522.3	2544.8	2556.5	2565.3	2577.5	2349.7	2403.8	2464.5	2495.9	2534.7
Goods and Construction	2406.9	2434.3	2453.3	2511.9	2512.9	2524.6	2368.9	2434.2	2432.9	2365.6	2451.6
Goods	1967.6	1986.6	2011.0	2057.7	2060.2	2069.1	1892.5	1961.7	1973.3	1946.6	2005.7
Construction	439.3	447.7	442.3	454.2	452.7	455.5	476.3	472.4	459.6	419.0	445.9
GNP—Product Measure (82 Dollars)	—	—	—	—	—	—	4718.6	4838.0	4877.5	NA	NA
Services	—	—	—	—	—	—	3403.3	3521.1	3564.3	NA	NA
Goods	—	—	—	—	—	—	1315.3	1316.9	1313.2	NA	NA
Manufacturing	—	—	—	—	—	—	924.6	932.4	922.8	NA	NA
Agri./Mining/Construction	—	—	—	—	—	—	390.7	384.5	390.4	NA	NA
Consumption Expenditures	3267.5	3302.3	3316.8	3350.9	3397.2	3432.7	3162.4	3223.3	3272.6	3258.5	3341.8
Services	1792.0	1803.7	1814.3	1829.0	1842.0	1865.4	1698.5	1731.0	1768.8	1783.8	1822.3
Goods	1475.5	1498.6	1502.5	1521.9	1555.2	1567.3	1463.9	1492.3	1503.8	1474.7	1519.6
Plant and Equipment Expenditures—											
Current Dollars	529.5	534.9	541.4	547.4	559.2	579.8	454.2	506.0	532.7	529.0	545.7
Services	341.2	352.1	360.2	365.6	373.9	393.6	282.2	313.9	330.1	335.4	363.0
Goods	188.3	182.8	181.2	181.8	185.3	186.2	172.1	192.1	202.6	193.6	182.8
Corporate Profits—											
Current Dollars	306.8	328.4	334.1	288.5	360.1	375.4	271.2	266.0	286.8	300.4	327.9
Services	217.9	229.5	218.4	169.2	232.1	242.9	153.7	157.9	177.6	210.6	212.3
Goods	88.9	98.9	115.7	119.3	128.0	132.5	117.4	108.0	109.1	89.8	115.5
Current Account Balance—											
Quarterly Rates	-6.7	-18.3	-17.8	-23.7	-22.3	-26.9	-127.2	-101.6	-91.9	-8.3	-66.4
Services Balance	14.0	13.7	15.3	13.4	14.6	14.8	12.1	24.9	30.7	45.9	56.4
Private Services Balance	15.0	14.7	16.2	14.7	15.2	15.0	19.7	32.9	39.7	53.2	60.6
Exports	41.6	41.5	42.4	42.3	43.2	43.8	100.0	117.7	137.9	153.0	167.8
Imports	26.7	26.8	26.2	27.7	28.0	28.7	80.3	84.8	98.2	99.9	107.2
Merchandise Trade Balance	-17.8	-24.8	-27.6	-26.0	-29.3	-34.4	-127.0	-115.2	-109.0	-73.8	-96.1
Private Services & Goods Balance	-2.8	-10.1	-11.4	-11.3	-14.1	-19.3	-107.3	-82.3	-69.3	-20.6	-35.6

Sources: Bureau of Economic Analysis, Bureau of the Census and Economic Advisors, Inc.

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